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<210> 4168

<211> 664

<212> DNA

<213> Homo sapiens

<400> 4168

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 aggttaactg caaaaataga ggaattccgt cagaaatcgc tggactggga aaancaacgc 600
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<210> 4169

<211> 780

<212> DNA

<213> Homo sapiens

<400> 4169

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<210> 4170

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4170

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atggatgtgt ttcatacctt ctcagaattg gtatatcaag acacatttaa atataagccc 360
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 aaggagaagc tgaggaacga naagaaanct tcgacaaaga gaatgggnaa tgtacatgct 660
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<210> 4171

<211> 578

<212> DNA

<213> Homo sapiens

<400> 4171

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 gctgattttc aaccaaataa aaaaaatcaa gtgcatttca gaagcttttg gaagagcagc 180
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 cacanggacc acaaaacaac tagccatgat gggagacagg agttttttac atggaaacat 480
 ggcacctgtg tttttatgtg gcaagatctt tatctatagg caanangtat gaaatttccc 540
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<210> 4172

<211> 681

<212> DNA

<213> Homo sapiens

<400> 4172

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ctcttctagt ttttggatga cccatcatct cttacctcac ctacagcagg aaccttgaaa 180
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aagccctcca cccacgggtc ctttccttcc tggctcgcca catcttccaa gtccatntct 600
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gattatgttg cnagcccnaa a 681

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<210> 4173

<211> 646

<212> DNA

<213> Homo sapiens

<400> 4173

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gccaggtcc tgaagaagct tgctgtcttc gatacgtgga gctccttggc ggtccacatt 540

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gcaatggaca acactgttgt gatggaggaa atcacaaggt tgtgcaggac cagcgttccc 600
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<210> 4174

<211> 756

<212> DNA

<213> Homo sapiens

<400> 4174

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gagtgcnagg tggcagtatt gtggggcgcc cgacgggagc cagagagctg tactggtcca 180
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aagaccaaaa cttacagaga aaagatggat tcttgtattg aagcctttgg taccaccaa 540
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cagcnatgct atccacaatg actttgcaag gatgactccc tctaaccttc ctccctgcta 720
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<210> 4175

<211> 802

<212> DNA

<213> Homo sapiens

<400> 4175

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tatggagacc tgattttatt ttgtaagagg tgggcaaccc ctgaagcatt ttagtgatgc 180
gaacagatgt gtctgttacc aagcaaagcc agttaaagaa ggtcacagag gaggaatgat 240
cacaaagagt ctgagaagcc aactggggcc aaacaagttt tagaacctct actggctgat 300
gccaacatca tcagagatga actgtttcta ccagaaactt ctctgctcct gacacccac 360
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gctttgctca gcaacatcct agcggcctat tcctttgtct cagaaaatcc tgagcgagca 540
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<210> 4176

<211> 565

<212> DNA

<213> Homo sapiens

<400> 4176

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caaactgtat gtggttggag gaagagatgg actgaagact ttgaatactg tagagtgcta 180
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ggtggtcgtg atgggaagtt cttgtctcaa atcagtagaa tgtttttgat cctcatacta 480

ataangtgga cactgtgttg cacagatgtc aaaanggaaa aggtggcatt aggagtgacc 540
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<210> 4177

<211> 563

<212> DNA

<213> Homo sapiens

<400> 4177

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tgcctaggga tcagccccac tgtcttttct ttgtataact aaatctgcat tttcaaatgt 180
tgtcaatcac atttttctta gagctgaata tccaggctgt aattctctaa accctttttc 240
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agtgagtaag gnaataaatt ttgccttttg tagggaagaa ctacaaaagt tgnnaatcct 540
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<210> 4178

<211> 689

<212> DNA

<213> Homo sapiens

<400> 4178

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ttttaaaatg aagaaccac gtgcggagga gtgaagccaa tatagtaata tctgaatgcc 240
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 cctgcactgg ctctcatgag cctccctgta gatacttggt agagcctccc caggtatata 420
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 aatgtagtat tgactcatgg gtcaattatt tttatgttgc tgcttaaaac ttttgttttc 540
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<210> 4179

<211> 662

<212> DNA

<213> Homo sapiens

<400> 4179

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<210> 4180

<211> 831

<212> DNA

<213> Homo sapiens

<400> 4180

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gctccatccc tcagtgcag tatgccttct gtagcagatt ctactctag tcatttttct  180
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tcacagttga atcatattgc tgaagaacat ggtaacaatg gaataaaacc taatgttgat  420
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caaaagccgg gtttcattat cataatgcag atacattttc tgtgttcagc aaggcattgt  660
gtgtcatgtg gatcttaagt taccaaacta tgaagtgaag gcttttaaaa gtgcattatt  720
tttaaggnta ataaattttg aagagcaaag caangttttg tgtggtttgg cacaannaca  780
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<210> 4181

<211> 675

<212> DNA

<213> Homo sapiens

<400> 4181

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aagcccagtg gtgcccagtt gcctccaggt cccagacctt tatgtggaca agaaaagctt 180
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<210> 4182

<211> 647

<212> DNA

<213> Homo sapiens

<400> 4182

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 aagtcctann acataaacac tgtgtggttc acaaaanggn atagagacat tctctcaaga 600
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<210> 4183

<211> 612

<212> DNA

<213> Homo sapiens

<400> 4183

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cttgggagac agacgaaagc ttagggcaca ttggaggaca gcgcagctgt ggctcccatt  180
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nanacgtttc cn                                     612

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<210> 4184

<211> 739

<212> DNA

<213> Homo sapiens

<400> 4184

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tttgccgccg ccgtcccgcg gctgctgttt ccggagttgc cccttcccca tgttccgggg  180
caggagtccg caaagcgaag atccgccccg cggttcccca tcatgtccga actgactaaa  240
gagctgatgg agctgggtgt gggcaccaag agcagccccg gtctctcgga caccattttc  300

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tgccgctgga cgcaagggtt tgtgttttagt gaatcagagg gatctgcatt agaacagttt 360
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 gcanaagtct aanttgcctaa gtggaacatt cttctgcctt ggntgtccaa gagcttggct 660
 ttgagcgatt tcaatgcatt aaattcaaaa aagatngttc aanaagttta acaannattt 720
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<210> 4185

<211> 617

<212> DNA

<213> Homo sapiens

<400> 4185

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<210> 4186

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4186

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atttttcttt ctttatagaa gagccgtaat aaccaacatt aaaatcgatt ctcaactaan 660
ctcttgctct gcttttaa at tcaatttttt aaagttggcc attgcnttaa aagatttact 720
atcenttccc tgggntttac cgggttttca aaaatttttt ttcaaaangg n 771

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<210> 4187

<211> 708

<212> DNA

<213> Homo sapiens

<400> 4187

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aaatgtcatt actgaaactc agtgcactct aggcttaaca gcattgcgca gtgatgaagt 180
gattgattta atgataaaag aatatccagc caaacatgct gagtattctg ttattctaca 240
agaaaaagaa cgtcaacgaa ttacagacca ttataaagag tattcccaaa tgcaacaaca 300

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gaatactcag aaagttgaag ccagtaaagt gcctgagtat attaagaaag ctgccaaaaa 360
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 gcgaacaaag gtcagttctt acccagtggc tctcatcccc ggacagttcc aggaatatta 540
 taagaggtag tcaccagatg agctgcggta tctgccatta aacacagncc tgtatgagcc 600
 cctttggatc ctgagctccc tgctctagac agtgatgggg attcagatga tggcgaaaga 660
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<210> 4188

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4188

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 ataaacctat ctcgtgtgga agatgtgtaa tgatttcaaa taaaagacat cacagcaatg 180
 gtacttagat tttgagttaa taaatgggtg ttagtttgag atacacatct gttatgattt 240
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 actcagtgtg tataaatgat gaagaataaa tatgcttatt ggagatcatt ttaatctatg 480
 aagcactgtg agacataagc tgttatttat caaaaaatat aattctaag ttgccccagt 540
 gttgctccaa ataacaaaac ttttaaagtc ataaaaacaa gtaaaaattt tgggtaaaaa 600
 cgtaactttt tattaaataa gcattgcatt acagttgagc aaaagataat gttgaaattc 660
 anaattgggg ttagaaaacg atactggagt atttgtgtca agcattgtca aaggaggaa 720
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<210> 4189

<211> 609

<212> DNA

<213> Homo sapiens

<400> 4189

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gtgtggccac tctccctggg gtccaaagtc ctttcccagag ggccggcctg tggagctacg 60
ggggtgctgg gccagggtct gtgggcctca gtcccctctg aacctcactg tgccccagat 120
cgtcaacacc tgcagtggcc cagacatcgc acgctccgtc tcctgcccac tgctctcccg 180
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gtccataaga aactcccaga agcacagccc cacttcagag cccaccccc cgggggatgc 480
cctaccacca gtcagctccc cacatactca caggggctac cagccaacac caaccatggg 540
caagtacgtc aagattctgt atgacttcac anncccgnaa tgccaacgag ctatcngtng 600
ctcaaggat 609
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<210> 4190

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4190

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acaaatattt acacaacatg taccttttgg aaggtatacc tgatctttaa agcaggtaaa 60
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atgataaact taaaagaata ggtacaactt ttctgcttta tttaaatttt attttctggt 180
ttattttaa ttagtcaa tctgtttgtg gcatttaact tcatacttgg aaaaatatac 240
agtctcccac tgttgaggaa ctcttctgga gagtatattt ttatgtgata ataagtagag 300
atgatgaaga aatgattttt gtatgccaaa ggatacaaaa atgtttttat ttaagcgaga 360
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attaatcaaa tctgttttaa gaaaattaat tacttgattt tgaaaactgt aagatatact 420
aatgaagttc ttatggaaaa taacctatit tggagtaata tccaagctg gcagaggctc 480
agtgaacta aatattctta agtgccattg acactattta ttattggtct gtttttaaag 540
caacatgaca atatagagga agagcaatta agattcccat acactttgac cctgttattc 600
catccttaag aaattatttc aaagaaatag ntcaatagag atgaaaagcn tantggnaca 660
ttgtccanca aagcaaaaaca tggg 684

<210> 4191

<211> 700

<212> DNA

<213> Homo sapiens

<400> 4191

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tgtnantan taatctgttt taattaacct tcaaagnggn 700

<210> 4192

<211> 677

<212> DNA

<213> Homo sapiens

<400> 4192

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cgttgagttc aaaaggacgc gcggagcggc gccggccctt caccagcagc ccgtccgact 120
ggaaagatct gcctcttctc caagaaactc aaccactagt gacaatgacc agcctcctga 180
ctactccttc tccaagagaa gaactgatga ccaccccaat ttacagccc actgaggccc 240
tgtccccaga agatggagcc agcacagcac tcattgcagt tgttatcacc gttgtcttcc 300
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ccaagggaga ancattgatt gatgtgggca aaatccaaag ctccagccaa ggtcgcagtc 600
ccaaatgccg acattcactg actccaaggg gaccaangac atgggagaaa gctgtttann 660
gatnancctt aaaccaa 677
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<210> 4193

<211> 618

<212> DNA

<213> Homo sapiens

<400> 4193

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cagctgccct ctgtgcaagc cattacccca ccangcctga cacagcttct ctctctgggc 480
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 ttcctttgac natctctctt taggcctacc agtttttgn aacanaaagt ttacgggtca 600
 ataantcaag caagttaa 618

<210> 4194

<211> 688

<212> DNA

<213> Homo sapiens

<400> 4194

aaaaaaaaa aaatagctaa cttactgaca gccatgccat ggaccacgca aagctgctgg 60
 tgaaaggggg tccctagctt ctcaagtgtt ttgagccagc aggatctgtc ttgacatagg 120
 ccctctctgg cctgggtcat ggtatggccc cctcccctgg tcgccccag ccgtcccacg 180
 aagggtgtta tgcgaaatgt ttcccatgca ggaattggct gaattctctc aacatccctg 240
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 cagacacaca ttaaggtcc cacattagt agcagtgag ctgggattga acccaggtct 360
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 cttatgagag aaatggctac ctgagccctc agcagcagat gggggcgggc tgaagcctcc 540
 tgctccctgg gggtcaggtg ggcagcactg atgctcctgt ccctaagtgt ccatgtgtgt 600
 tttccccaag gatcagccan aggaggaacg ggggaaacan gagtcctctc ctaaccctac 660
 ttgggaaggc tangcgcag gcaataaa 688

<210> 4195

<211> 605

<212> DNA

<213> Homo sapiens

<400> 4195

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tgggtccacaa gttccaaga caagcacatt cctgccaaca tgatccttgg acaaactgtt 540
ctggaatttg aacttgctac tgggnagangg ttaagtccaa ggacacacac acacacacac 600
nnana 605

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<210> 4196

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4196

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agccatctta tttcagcccg aatctagtaa tcagaagctc actaactctt gatgcctcct 180
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gatatacaaa aaaaggctat acaaagtata tacaagaaa tgcatacaag ctgtggtata 540
aattgctgta atggnagcat gtacanaatg ctaaaggaag ctaagagagc atctaatatg 600

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gcttaggaaa agaggctgac ctagctatgg agaaatTTTT tgggtgagtc ttaaaagaga 660
 aaatTTTcct ggcaagaaaa agaggggaaa gaatTTTggg ngtcagtga gatnagcaat 720
 gtccaaaagg nacaagaggg aaagaaagtt gggaagcaca catngttaa a 771

<210> 4197

<211> 671

<212> DNA

<213> Homo sapiens

<400> 4197

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 tgtcttccct accctcttca ttgcctcttt caacagtatg aagttaaaat cagctctgaa 180
 gatgacaatg cattcaaatt caccagatca cccccagctc tgaagatgac aatgcattca 240
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 caccagatca tctantgaag tttcacttct gnttcttanc acctccctga ctcttctgtt 480
 ccctanagtg gaaggagggt ctgggaaagg acctttgcct gaaactaana agtcaacatg 540
 gntacccctc aatanccac ctgggaaggg agctgccnat gagccggaag cagntgggga 600
 ggagatgaaa ctggggctat cggctttgca ngctgggagc cccctcctgt anctgcctta 660
 tcttcnggta t 671

<210> 4198

<211> 389

<212> DNA

<213> Homo sapiens

<400> 4198

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 ggacgagccc cgggcgtgca ttgtgtatat gcaaaccgga gctgggctcc ccacggctgc 180
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 ggagccggac gcggtaatgc cccagcggcg cagcgggcgg ctgcgtccct gagccgctat 300
 ataagcgcg caggggaacat ccggaggggc tgaagatgaa ggtgcccgcg catgggcccc 360
 cgctgattgc cagtccttct ngancccg 389

<210> 4199

<211> 814

<212> DNA

<213> Homo sapiens

<400> 4199

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 ttgtttccaa gtgttttgag cctcatctct acgtgtatat cgaatcccaa gacaagaacc 360
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 aactgatga agggggtgcc gtgctcccca gctgcgccga cctctttgtc tactacaaga 480
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 naagtagcca agttcactct gggaggagct ctgcctcatc tggttacaat cctgagcacg 720
 ggaaaagtta ctgtctgggc aacaacccaa cagctannaa ggaaaaanct caaaggnaaa 780
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<210> 4200

<211> 688

<212> DNA

<213> Homo sapiens

<400> 4200

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ggaagcgtgt ggatagtagg tcagagggtca gcagtgtctg tgggttaggg tgtaatccca  180
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agtttcaact ctttacaatg aacatattta tcttttttaa aaaataaagc cattttaaaa  300
gatcttgcca aaaaacaatc attccttaag tcaccactta ggatagacct agaataattg  360
tcctttctca agagcaccan agagttttct ggtaatccac gcaataaaca gttataaaaag  420
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tatcatagga acgtactggg aaaaccaata gaattcacgg atcctttgaa aagaagacgc  600
acancactgt aaattctgtg gaacagggag aanaactggt ccttgggggg gaaggcatcc  660
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<210> 4201

<211> 770

<212> DNA

<213> Homo sapiens

<400> 4201

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ttttttcatt taagaaatta ttgtgacttg taagttactt atcccataaa ggtttgttac   60
ttccctcact tcacctccat aagaacctgt gtttcataa gtaagattac gtacctgatt  120
tcctgtctga gaactatggt aacagatggt aatagttgca ggggtctcacc acttcattag  180
ataagtgttg tctacctagt ctaggaggca cagaattctc attctgttat ccagttcatt  240

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ccagcaatca tagttaatac agtacttggg gacacgccct acccccttct cttccaagtt 300
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<210> 4202

<211> 726

<212> DNA

<213> Homo sapiens

<400> 4202

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 ggcanagtgt ggcctaaatg agcaccatca aaatgaagtt attaattata tgcgttttgc 180
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 ccactaagca cccitttaaa agttctcctg tttcnactgg tccnaggat tacaaaggcc 660
 aatcgagatt tatgaaattt gcttttcang ggttancatt aaattatttc ctacaagnat 720
 ttttgg 726

<210> 4203

<211> 728

<212> DNA

<213> Homo sapiens

<400> 4203

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aaagtgaagc cgccctgaag gaacgaattg agctcagaaa agtcaaagcc tctgtggaca 60
tgtttgatca gcttttgcaa gcaggaacca ctgtgtctct tgaaacaaca aatagtctct 120
tggatttatt gtgttactat ggtgaccagg agccctcaac tgattacat tttcaacaaa 180
ctggacagtc agaagcattg gnagaggaaa atgatgagac atctaggagg aaagctggtc 240
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atgccangc ttacaagggt ttacgtgaaa tgaaaagcca ttgggnatag naacctcgct 660
tgcaacatat caccatatta attcncctgg tttggtcaan cctgggggaa ncccttttaa 720
aggaggtt 728

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<210> 4204

<211> 873

<212> DNA

<213> Homo sapiens

<400> 4204

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ataatccaaa attctttggc aatcttcagt ctgatgattc caaaaaaaat gactcaaaaa 60
taaaagttac tgtgttgga atgtctgaat atttgaacaa atatgaaagc atgtcctcaa 120

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ataaagactc aaaaaggcct aagacatgtg agcaaaatac tcaacttaat agcatagaga 180
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<210> 4205

<211> 577

<212> DNA

<213> Homo sapiens

<400> 4205

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577

<210> 4206

<211> 505

<212> DNA

<213> Homo sapiens

<400> 4206

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<210> 4207

<211> 713

<212> DNA

<213> Homo sapiens

<400> 4207

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 aatgtcaaaa gttacatcaa aaataatggc tctgattgtc catcatctca ttcatttaat 180
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 aagccatcca ctatgtttgt gtcattctaca gaggagttaa accaaaagtc tttttctgga 420
 ccatctaatt tgggtaaant caccaaaggc acattantag gaaggacttc atattcttcg 480
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 aatccccaag acagtagtaa ntctattaat tatgaanaaa tgggtaaggg gcacaaaggt 660
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<210> 4208

<211> 552

<212> DNA

<213> Homo sapiens

<400> 4208

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 taccaggggg tactgacctt gatttctcct acaaggacca cactgccttt gngtttaatg 480
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 gatatacatgc ca 552

<210> 4209

<211> 654

<212> DNA

<213> Homo sapiens

<400> 4209

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<210> 4210

<211> 822

<212> DNA

<213> Homo sapiens

<400> 4210

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<210> 4211

<211> 795

<212> DNA

<213> Homo sapiens

<400> 4211

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<210> 4212

<211> 785

<212> DNA

<213> Homo sapiens

<400> 4212

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<210> 4213

<211> 747

<212> DNA

<213> Homo sapiens

<400> 4213

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aaaaaaagaa gttccagagg cccagacttg ctactggtgc ccagggggct gtggggcagc 180
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<210> 4214

<211> 761

<212> DNA

<213> Homo sapiens

<400> 4214

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<210> 4215

<211> 839

<212> DNA

<213> Homo sapiens

<400> 4215

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gttcttcgtc tcaagaggaa ctgacttctg ttgagcactc aacacgccac agagaccagc 180
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gaattttgtg aaacaaatgt agnccccatc ataaggggca agatttgga caattgntaa 780
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<210> 4216

<211> 801

<212> DNA

<213> Homo sapiens

<400> 4216

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<210> 4217

<211> 860

<212> DNA

<213> Homo sapiens

<400> 4217

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<210> 4218

<211> 656

<212> DNA

<213> Homo sapiens

<400> 4218

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<210> 4219

<211> 776

<212> DNA

<213> Homo sapiens

<400> 4219

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<210> 4220

<211> 829

<212> DNA

<213> Homo sapiens

<400> 4220

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<210> 4221

<211> 605

<212> DNA

<213> Homo sapiens

<400> 4221

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<210> 4222

<211> 745

<212> DNA

<213> Homo sapiens

<400> 4222

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gatgccactc caagctggac gggctcgtgg agtctgcatt cgagggattc cctagtccgt 60
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gttgaccagc ggctcactct gtagaggaag aagaccagag aatggntacc accaagacag 600
tgataagtgc tgcaacaagg ttcaanagct gcacaagaag tcccaaagg tagtggaanc 660
catcaatccg ggggcttaag gaaagaagct tttaaanggg aagattaaag ccancaaggt 720
gacnccaaaa aactggggta attcn 745

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<210> 4223

<211> 849

<212> DNA

<213> Homo sapiens

<400> 4223

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gagaaaaaaa aaagaaaaaa aaccatatgt gtattagggg gactgagtgg tgacttcatt 60
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tactgtttga aaagaagttt cgttttaatt ttggaattta gaatgtgtat ttgcaaagtc 180
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tttaatcagg aataatcctt ttttttctgc tggacatgta taaatttcac tggattgtat 360

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aaatTTTTat ctattgcctt aaacatttac atgatttctca atatgtttta gctgtacagt 420
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 gtaatactga ttttgaaaat atatataagc taaaaacagt atttcgttga tatcagtagt 540
 cattgggtta actataaagt caagtgccag caaagaactt taaaactgta aagctgtgta 600
 tagaactgtt ttgtgtagca tggaaataat ctgtcagctt tttaaagtca ctaaagtgtc 660
 ctggattatc aacttgaagg naatTTTTtg aattacaaag ttgacaagtt gcctgggtgt 720
 antgggtctca tgccctgtaa nccaagcaa ccccggggtc taaggtgggg aaggattgct 780
 tcaagcccaa ggagttttgn gaacaanccc ttggggcaac aatanncaa aacccccaac 840
 ccctacnaa 849

<210> 4224

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4224

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 tgtggccccg attcatttgc tacagatccc tctaaacaaa caaccgtcag cgttagcttc 180
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 ttgacttctg ggcccaattc tcccttttac aaagccttga ttgaatctgg ccttggcaca 300
 gacttttctc ctgatgttgg atataatggc tacacgaggg aggcctactt tagtgtcggc 360
 ctccaaggga ttgtggagaa agacattgag accgtcagaa gcctcataga cagaacgatt 420
 gatgaagtag ttgagaaagg atttgaagat gatcgaattg aggctttact tcataaaatt 480
 gaaatacaga tgaaacatca agtctaccaa gctttgggct gatgctgaca tcatacatag 540
 cttcttgctg gaaccatgat ggggaccctg tggagctctt gaagttagga aatcagttag 600
 ctaaattcag acagtgcctg caggaaaatc caaaaatttt gcaagaaaaa agtaaaacag 660
 tattttaagg aataaccagc ataagctgac tttatcgatg anggcaaag acaagtnnca 720
 cgaggaagca ngcacaaggt ggaagccacg aagctcaagc aanaagggcc aagg 774

<210> 4225

<211> 721

<212> DNA

<213> Homo sapiens

<400> 4225

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atttttagta gagatgaggg ttcacatgt tggtcaggct ggtctcgagc tcctgacctc 60
gtgatccctt cacctcggcc ttccaaagcg ctgggattac aggcgtgagc taccgcatac 120
ggccgatctc aagtaatttt tttttttttt tttaagagac ggagtctcgc tgtgtcggcc 180
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cattctcctg cctcagcttc ctgagtagcc cacgctgggc taatttttgt atttttagta 300
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tccccagctt tcttaagtca ctgcgcanag gtgagaggaa aaaggaaaag tgatacccaa 480
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ttcttgttta attttttaa actgagataa ctgtttaatc ataatatagt acagcttgta 600
cttgtgacct gaatttactt aggggtgctga acngtaatta acctganggg ggccaatgtc 660
atccaatcan taatgggttg gnaagagaga acaagnccta agctccggaa atgtggacca 720
a 721

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<210> 4226

<211> 695

<212> DNA

<213> Homo sapiens

<400> 4226

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gtaagtcccc ccgcctcgca tgatggctgc ggtgccgccg ggccctggagc cgtggaaccg 60
tgtgagaatc cctaaggcgg ggaaccgcag cgcagtgaca gtgcagaacc ccggcgcggc 120

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ccttgacctt tgcattgcag ctgtaattaa agaatgccat ctcgtcatac tgcgctgaa 180
 gagccaaacc ttagatgcag aaacagatgt gttatgtgca gtcctttaca gcaatcacia 240
 cagaatgggc cgccacaaac cccatttggc cctcaaacag gttgagcaat gtttaaagcg 300
 tttgaaaaac atgaatttgg agggctcaat tcaagacctg tttgagtgtt tttcttccaa 360
 tgaaaatcag cccttaacta ccaaagtatg tgttgtcccc agtcagccag tgggtggagt 420
 ggtgttgatg aagggttttg gagcctgcaa gttgttgctc cgcttggttg actgctgctg 480
 caaaactttt cttttgactg tgaaacatct angtttgcaa gagttcatta ttttaaacct 540
 tgtgatgggt gggctgggtga gcaagttatg ggttctctaa aaaggtgtct taaaaagggt 600
 gattttgtta natgagcctt tgtttggatt gcttcaagan gtcnctagga ttcaaccaa 660
 tgncttactt caaagaattt acctttncct tctga 695

<210> 4227

<211> 710

<212> DNA

<213> Homo sapiens

<400> 4227

attgagaaag agttcaagaa tgactacaaa aaactgtcaa tgcagtgcaa agactttgtt 60
 gttggactcc ttgatctgtg cagaaacact gaagaagtcg aggccattct gaatggggat 120
 gttgaaacgc tccagagtgg tgatcacggc cgcccaaattc tcagccgttt aaaacttgcc 180
 attaaatatg aagtaaaaaa attttagct catccaaact gccaacagca acttctctcc 240
 atttggatg agctttctgg tttacgacag cagacaatgg cggtaagtt ccttgtggtc 300
 cttgctgttg ccattggact gcccttcctg gctctcattt actggtttgc tccatgcagc 360
 aagatgggga agataatgcg tggaccattc atgaagtttg tagcacacgc agcctccttc 420
 accatttttc tgggactgct agtcatgaat gcagctgaca gatttgaagg cacaaaactc 480
 cttcctaattg aaaccagtac agataatgca aaacagctgt tcaggatgaa aacatcctgc 540
 ttctcaagga tggagatgct cattatatcc tgggtaataa gcatgatatg ggctgaatgt 600
 aaagaaatct ggactcaagg cccaangaa tatttgtttg agttgtggna catgcttgat 660
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<210> 4228

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4228

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gaaaaacaag ctcagcgatg gcgggctcca gaaggcagcg gtctaggcga ggacgcccgg 60
ctggaccagg agaccgcca gtggctgcgc tgggacaaga attccttaac tttggaggca 120
gtgaaacgac taatagcaga aggtaataaa gaagaactac gaaaatgttt tggggcccga 180
atggagtttg ggacagctgg cctccgagct gctatgggac ctggaatttc tcgtatgaat 240
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ggtagcagca gaaggtttgc ccgacttgct gcaaccacat ttatcagtca ggggattcct 420
gtgtacctct tttctgatat aacgccaacc cctttgtgc ccttcacagt atcacatttg 480
aaactttgtg ctggaatcat ggtaactgca tctcacaatc caaagcagga taatggntat 540
aaggtctatt gggataatgg agctcagatc atttctctc acgataaagg gatttctcaa 600
gctattgaag aaaatctana accgtggnct caagcttggg acgattcctt aattgatagc 660
agtccaattc tccacaatcc gagtgttcc aatcaataaa tggcctactt tgaagacctt 720
aaaaaagttc cggtttcac aaggggagcgt tnaacanggg agacaaaang gggaaatfff 780
tgttgcaaaa cctcctgtcc aaaggggggt ggggtccaaa anctttgn 828

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<210> 4229

<211> 656

<212> DNA

<213> Homo sapiens

<400> 4229

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atttgcaaaa tccctttgcc atttaagatg acacaataat tggaatgata tcccatcata 120
 ttcacaggtc ctacctatac tcaaaagggtg gtaggttata cagggtggat atagtgttga 180
 aagaaggaat gaatgaaatg aatgaattct gatagctgga agcacagcaa ctagcttttt 240
 ttgtagcatg agtgagagaa ggtattgagt tccttattga agaatgcagt tgcaacagtt 300
 tatcactagt gagctgcttc ttggtaacta taagacataa gcagacaaga aacagcaaga 360
 aaggaaggaa ggagaaaaga gaacgagaag gaaatcatta ttttggaccg atttccggtg 420
 gtggtttcaa gaagtctctc ccaccctcca gactgctgtc atttacaatt gctagagaac 480
 aagagctggg agcctctcct tggttctgct cctgtggcat agccatgggg gatgcagaag 540
 ggcantgggtg cccactaaag ggaatccccg tcagctttgg ntttaagttt ccagagattg 600
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<210> 4230

<211> 377

<212> DNA

<213> Homo sapiens

<400> 4230

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 ctggatttat aagtgtgttt atgtttctct aagaatggga gcttctgtta acttaggggt 120
 ggagttgttc tgaggaaacc agtagattgg atgactgact ggagaatcca gaataacaaa 180
 tccattatcc agacatgttt acttttatat taagaagttt gttgattagg tcttaatttt 240
 caaatgcaaa caccaagctt tgaaaatatt gcatatacaa tgtattggnc accaatttaa 300
 taatatttaa tttgaagtta attactgtta atccttctan aaaagttttt tttctttaaa 360
 taaaagtaca tanatat 377

<210> 4231

<211> 801

<212> DNA

<213> Homo sapiens

<400> 4231

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gtgcgcctgc gcgcggcgcc gaggggacgg ggtccgactc agaaatggcg gcctccatgt 60
tctacggcag gctagtggcc gtggccaccc ttcggaacca cgggcctcgg acggcccagc 120
gggctgctgc tcaggttctg ggaagtctctg gattgtttta tgacatgga ctccaagtac 180
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gaggaaaagg aacatttgaa agtggcctca aaggaggagt gaagatagtt ttctctccag 420
aagaagcaaa agctgtttct tcacaaatga ttgggaaaaa attgtttacc aagcaaacgg 480
gagaaaaggg cagaatatgc aatcaagtat tggctctgtga gcgaaaatat cccaagagag 540
aatactactt tgcaataaca atgggaaagg tcatttcaag gtcctgtatt aatangaagt 600
tcacatgggg gtgtcaacat tgaagatgtt gctgctgaaa actcctgaag cagttaattn 660
aaggaacctt attgatattt gaaagaaagg catccaaaaa gggaacaaag ctctccanc 720
cttgcacaaag aagattggga atttccaacc ctaataattg tgggaatcaa caannaagna 780
aaacaatggg ncaaagcttt t 801
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<210> 4232

<211> 675

<212> DNA

<213> Homo sapiens

<400> 4232

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ggattatattt ttcccctttg gaataacttt tgtgaattat tataatgcag tttccctagt 60
aatatagtagt ttttcatttg aaccacatct tgactgatct gtattgtaat atatgtcagc 120
aggtaagggt gcctgctgga tcattttgag gacagaggca tgaggagca catctcttgt 180
gaagttgcag ccagatttgt aaccaaccct gaaattcatc agcttaattc attatcagc 240
ttgattcatt catcattcat tgcttatatc caaagcaaag acggtaagaa aatgaattca 300
tcctgaaata taaagaaaag ggtctgaagg aacaaacacg attctcttat attttggggc 360
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tcattgagcct tgatagacag tttcctctcg tcttcatttc caccctcat cctcagtagt 420
 ctctctcccc ccacgcccc ncccaacttc ccccccaagc ttgagttaa gacagaatag 480
 ctaaagacag tgctgccttt acaatgcagt aattgccatc tttggggccg aaagacaagc 540
 tctgtgttgt gcttttcttg accaaccctt atcctgggct ctggagcttg tgtttccctg 600
 ctggcgactg taccttgggt aattgggtgct acctcccctg tttgctcant angaccctgg 660
 tccnggnngg caatt 675

<210> 4233

<211> 594

<212> DNA

<213> Homo sapiens

<400> 4233

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 agacctggcc ctttgcagtg atataaaatt tttcttgagg tgtctggaaa gatggctgaa 180
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 atttccaact aaagtacca gctcatctca ttgggactgg ttagacagtg ggtgcagccc 300
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 tccggcacag atactatgct ttccccacgg tctttgcaac ccacagacca aggagattcc 480
 cttgggtgcc tgcaccacca agggccctgg gtttcaagca aaaanctggg cagccatttg 540
 ggcaaacact ganctagcag caggaggttt tttcataacc ctaagtancc ccta 594

<210> 4234

<211> 617

<212> DNA

<213> Homo sapiens

<400> 4234

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aagagacaaa ttggctgtgt cagtgtgggg ttatgtcatg atttctagaa gccctgaagt 120
tgctcttttg agcagctttg catgacacgc tctggtaaaa ggtgtgcatc tttaaattat 180
ttcatggata ctttgaaaaa tattgtatca cttcaaatac agcaataagt ttatatgttc 240
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ctgtgcactg gcacgcttgc atcangggct ggggccacac ggccgccaca cagattcccc 420
cgtgatgcct ggagctgctt ccanagccgg gtgtctccaa gaggcacctg taggacttcc 480
catttaagaa atctcttgag tgggtttgta ngttaccttc tccaagntt atttaggaca 540
nagatatgtc tgggaaggtc atgggtcaaa ttccctcaca acccaactcg tctgcgggtg 600
caancccant ccaaggn 617

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<210> 4235

<211> 613

<212> DNA

<213> Homo sapiens

<400> 4235

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aaaagcaaaa tctgagcagg cttccgaggt ttcctatgca ggagtgattg gggcagatgt 60
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tggaacgtct tcttgtcaca tggggatcag caaagaccg atttttgtac caggcgtctg 180
ggggccttat ttctcagcca tggtagctgg gttctggctg aatgaagggtg gtcagagcgt 240
tactggaaaa ttgatagacc acatggtaca aggccatgct gcttttccag aactacaagt 300
aaaggccaca gccagatgcc agagtatata tgcataattg aacagtcacc tggatctgat 360
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tggcaaccgg tctcccttag cagatctgac actaaagggc atggtcaccg gattgaaact 480
gtctcaggac cttgatgatc ttgccattct ctacctggcc acagttcaag ccattgcttt 540
ggggactcgc ttcantatag aagccatgga ngcancaagg gcactcaatc agtactcntt 600

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tcctangtgg agg

613

<210> 4236

<211> 892

<212> DNA

<213> Homo sapiens

<400> 4236

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aaataggtga cttaaaagaa ggcattccat catagatggc aaaaaaccaa aaatctgttg 60
gaccagtaac tcttcttttt ctttgacttg cttagtaggt taaaaagtga taatgaattc 120
aagtttttgt tattgttggt caaaacatca tttttaagac ccgaggctct agtgctgcat 180
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ccatttataa ctttagtaat atacaatgtg acttttttta gtatccttgc tagtattggg 420
cattgtcatt gttttaatct ttgccaatct gatagttata agtgatactc atttaaattt 480
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aagacagcat gtancctggt cccctaataa aggggtactcc tangggcaaa agaccttgnt 840
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<210> 4237

<211> 712

<212> DNA

<213> Homo sapiens

<400> 4237

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ccccatttct tctgagaagg acagagccaa tctactcctc ctgggttatg ctcaaggaag	180
actagagggtt ctgagttctg tccgcacaga atgggaccca ctggatgttc gctttggcac	240
caaacagcct tatcaggtgt tcacagtga gcactccgta agttagaca aagagcccat	300
ggctgacagc tgcattctatg aatgcattcg gaataaaatc cagtgtgtgt cagtcaccag	360
aataccacta aagtcaaagg ccatcagctg ctgcaggaat gttactgaag acaaactgat	420
tctgggctgt gaagattctt cgctaattct ttatgaaact caccgtagag tgactctctt	480
agcacagact gaacttttgc cttcantaat aagctgccac ccaagtgggtg ccattctgct	540
agttggcaac aaccaaaggg gatttgcaaa nttttgntat ggctctatcc cctattaaca	600
tccaactgtt ggctgaaaga ccgcttacc angggaggaa tcttgcaaat tcaattaaan	660
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<210> 4238

<211> 816

<212> DNA

<213> Homo sapiens

<400> 4238

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tcctgacatt atgcactccg aagcagaaga atccaaggaa gtggccacag atgtcttta	120
ttccaaaaac ctggccgttc aggcacaaaa gaagatcttg ggtaaaatgg tgtccaaatc	180
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gaccagggag tacacccaaa acaagaagga ggcagagaag atcatcaaga acctcatcaa	300
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attgatggag aaatttaaga agaaagttca tcagcttgct atgaccgtgg tcagtttcca	420
tcaggtggat tatacctttg accggaatgt gttatccagg ctgttaaatg aatgcagaga	480
gatgctgcac caaatcattc agcgccacct cactgccaag tcacatggac gggttaataa	540

tgtgtttgat catttttcag attgtgaatt tttggctgcc ttgtataatc cttttgggaa 600
 ttttaaacc cacttacaaa aactaagtga tggtatcaac aaaattgttt ggatgaagag 660
 aacatattag cacatgagtt aagantgggtg accngatcat ggatttaatt tgaagatggn 720
 gcactgctgg attttatgaa gggaaaaaag gaagaatttt cctaaagnat tacacaatat 780
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<210> 4239

<211> 677

<212> DNA

<213> Homo sapiens

<400> 4239

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 agacaaccac agaaagtttt gtttttgta cattctactg ctactgtgtc aatggcagca 180
 ttttgatata ggtggaggga tgctcacatc aaccccataa ttttgtgtcag cttctcctga 240
 agttatcaga agcatacaat ttaagtaaaa acagtatctt cgctatccaa atgatgttcc 300
 aaggtaaatc tcctcagatc ctttccagta catgtatgct ccaaggcctg ctctatgtag 360
 aacttttgga gccatcaacg tactgcttga ggttgctttg aacaaaaggt atttgacata 420
 agctctataa gatcaggac tcttttttan tttattcatt gttctttatc ttctagagca 480
 ataatttgca aaatgactat ttattgaata aactaggacg gangtgaaaa ggaaagaaca 540
 agctcatcct tccaagggga agagagcagt atcccaaadc caaattgaag aaaatanaca 600
 tatatctatt caccangaag agatanaagg gaagacaggg cagaatttct gtgggtctta 660
 caaactcngc acntcta 677

<210> 4240

<211> 561

<212> DNA

<213> Homo sapiens

<400> 4240

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agtcagggag gcgaactgct gagcactggc cgcggacgct ccgttgcagt ctcgcccagg 60
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<210> 4241

<211> 707

<212> DNA

<213> Homo sapiens

<400> 4241

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ctggataact gggagggaag ctcaagggtg gaantgcaac tggctggtat ccnggggttc 660
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<210> 4242

<211> 670

<212> DNA

<213> Homo sapiens

<400> 4242

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 aatggggaat ggnttcatga gtctaaggaa gganntatca gagtatggng gaaacacacc 660
 aaactacctg 670

<210> 4243

<211> 729

<212> DNA

<213> Homo sapiens

<400> 4243

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<210> 4244

<211> 778

<212> DNA

<213> Homo sapiens

<400> 4244

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 gtcagcagaa tctaaacccc tacattaaag ctttgcctcc cattctgtgg ttgtggtggg 180
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<210> 4245

<211> 789

<212> DNA

<213> Homo sapiens

<400> 4245

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<210> 4246

<211> 662

<212> DNA

<213> Homo sapiens

<400> 4246

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gtctctccac ccgcctcccg ccctctgtaa gggaccccga gggcggcgcc ggaaacacgg 180
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cc 662

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<210> 4247

<211> 760

<212> DNA

<213> Homo sapiens

<400> 4247

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acaagcttaa aaccattccc acaaccatag caaactgtaa aaggctgcac acccttgttg 180
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tgtgtgtctc agcacttgct atggatagct ttgcaagagg ggggtggganc tgtgtatggc 540
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 gtgcttttag aagaggtaca gcaagtcaac taatgacaca gnttttcaaa gggtaaacac 660
 cttctttggg aatcccacaa gggnaatttt nggaatggct ggggccaaaa aatttggggc 720
 gccccccggt cccccgggg ncnaaaatcc cggccccggn 760

<210> 4248

<211> 630

<212> DNA

<213> Homo sapiens

<400> 4248

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 gtaaaaagaa ggatcagatt ggaaaaggga cccagggagc aactgcagga gcttcatctg 180
 aactggatgc cagtaaaact gtgagcagcc caccacctc cccaagacct ggcagtgtctg 240
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 gttcttgtgt ttcaaattag ggaaacatct tcctcaaagt ctgcctagt agatatggcc 540
 tactggttgc ctcatagctt tgtacaagat tacgaggact gaaaataatt gggcatttac 600
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<210> 4249

<211> 788

<212> DNA

<213> Homo sapiens

<400> 4249

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aaattctttt cattttgttt tggctctgta attaaacact caaagtgtat cagtagctaa	600
aacattactt caataccac atttattctg gctagaaaat cattccattt tataccatgg	660
agcatccaag ttatttaatt aagaaaattt cccttaagat ttataccana tatgggnaaa	720
gngntaaang ccaatgttag gggcaaaaca aaatgtctgc tgcggttggt gatttcaatt	780
tgcataat	788

<210> 4250

<211> 617

<212> DNA

<213> Homo sapiens

<400> 4250

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<210> 4251

<211> 621

<212> DNA

<213> Homo sapiens

<400> 4251

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 cttgttttcc tgtcagttgg acnccctacc tggnctccag ggaagantgc aganaaaagc 600
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<210> 4252

<211> 843

<212> DNA

<213> Homo sapiens

<400> 4252

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<210> 4253

<211> 915

<212> DNA

<213> Homo sapiens

<400> 4253

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 acaaacttaa ggataaatgg ggttcttgag gagggaagag aaagctaaac cgtttgggaa 840
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<210> 4254

<211> 836

<212> DNA

<213> Homo sapiens

<400> 4254

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 taaaactaaa ggtaactgan catgccaant ggttgggggtg agaaaattgc atggnggaat 780

ccaagacaca gaggcagcaa aaacccaagt gctgggaant caagagtgan aaaagt 836

<210> 4255

<211> 539

<212> DNA

<213> Homo sapiens

<400> 4255

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<210> 4256

<211> 833

<212> DNA

<213> Homo sapiens

<400> 4256

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 tggagtccat tgatcaatat attgagagaa aaaagaaaca ttttgaagaa cacaattcca 720
 tgaatgaact gaagcaaccc atcaataagg gaaggggtca ggactccaag tacctccaaa 780
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<210> 4257

<211> 789

<212> DNA

<213> Homo sapiens

<400> 4257

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 aaaaatggtn cagtttttaa gaattttcta ttaaccngca gggtaataat tagctncatg 720
 ctgcaagact ccaacaaaag cctaagtcca actggaaagc ccaaatgccn aattttaang 780

ggntttaat

789

<210> 4258

<211> 737

<212> DNA

<213> Homo sapiens

<400> 4258

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caaatgttta taaaatgact accgtatgct aggcagagta tggngcatag caactatgaa 60
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atttactccc attttgatta tattaagaaa gtatgtgagg gcatgagcct ctcaggaggg 180
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tccagtgtga tgacatggct tggtcacccat gcttcgtgtt tgctaaaaag aaaccaggga 360
tatgagtttc tgaattctca acctgggtgcc ttgcccagag aacaaagtca ggttaatcag 420
acgtcttccc ctctccagcc caactcattc gctggctgac ctctcntggn cccatggttc 480
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ccactccaga cttctgcttg gattccgttg ggctgtctca taagcatctt atgcctgcta 600
catctaagtc nancaacaag attccaacct ccaagnctgc tcaagccctt gcctcctgcn 660
tttggggaaa cgggacatcg cttttttccc ctgangttgt gtgttgccaa aaaagtcgtt 720
gaaantcaan cctttgn 737

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<210> 4259

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4259

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aaataaatac atctgggatg actgaccaag aacaaagaat gtaggcatca actgaacacc 60

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aactgtatac ctgggactgg atctgagggt aggattgcca gattgagcac aaacaaacaa 120
 acgaaacaca agaaacaaca gaagggtgcc tgttaaatat gaatttctgg taagcaataa 180
 gtaattttta ttgtgttcct gtgcaatgat aggacgcacg taccctgaaa acctgtctgt 240
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 tgggaacata ggctgatgcc cctgggggtt ctgcgtttcc ttggccagggt tcctgtaggg 360
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 tgataatagc tgttatttta gcttctgaaa aatgtgctgc cctcaagagc ttctgaggct 540
 aagcctactt ggggtgaaaat agctttccaa ggagccacat tgtggggacn ttnagggaac 600
 agccccacac tttggggnc a ttggctgtc tccaactcat cctcacttnc caaggctgga 660
 caaaggngat taaaaagaaa atgccaaagg gggttgggca aggcaagaac cctgtttggc 720
 ntttгнаagg ngct 734

<210> 4260

<211> 776

<212> DNA

<213> Homo sapiens

<400> 4260

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 ttaaaagagg ctctttggaa gtatatacat tattaacata atgtgtacaa gtccttttga 180
 aatgacaact ttaatgggtt tcagctcttt tatctagagc ttgagataat tcaagctgag 240
 tttttcaggg catatcaca cggcaaagt ttcagcagtg ggatatcaat gcttattttac 300
 attttcctac tgctatttat ataaaatgtt attccattca gaggatgcct tttatcccca 360
 cattaaagca cagatcatta agcaataaaa accaaattgt ctgtcattca aattataact 420
 gcagttattt ttgcatggta agagtgagg gctaattttg tgtgagatga actttgtaaa 480
 ctactttggg aaatgttctt tggaagtaag gttttttctc ctttagtctt atgcttccac 540
 ttttgtctca agattcaca tccattaana catgggggaaa aaagaaaagg taaaattgag 600

agacttttgt tagaggagct atttgatga accaacattt cagattttcc aaaatgtaag 660
 ttaggaagct ccaatggccc ctgcattaac aaaatacact gttacnacct aatcccaaga 720
 gtgtcattac agtgagaatc cncanttaaa ngcattccag tggaaattat aanaat 776

<210> 4261

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4261

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 accaacagga agactttttt tttttccaaa attgacttac actgaaaagt ttatctttgc 120
 ctccataccc cctaaaaatc aaatgatgta tatttttcca tgaaatgcct tttggtgtgg 180
 tttatgtgca tgactgattc ttagaaagcc aataagatag ggggtggagcc aagatggccg 240
 aataggaaca gctccagtct aaagctccca gcgtgagcga cgcagaagac gaaagatttc 300
 tgcattttcca gctgaggtag cgggttcata tcatcgcgga ttgtcagaca gtgggtgcag 360
 tgcaccaagt gtgagccgaa gcagggcgag gcatcacctc acccaggaag cgcaaggggt 420
 cagggaattc cctttcctag ccaaggaaaag gggtagacaga tggcacctgg aaagtcaggt 480
 cactcccaac ctaatactgt gcttttccaa cggtcttagc aaacggcaca ccaggagatt 540
 gtatcctgca cctggcttgg agggctcctat gcccatggag cctagctcat tgctagcaca 600
 gcagtctgag atcaaaactgc aaggcagcaa gaggctgggg gaagggcgcc cgccattgcc 660
 caangcttga gttaggtaaa caaagtggcc gggaaactcn aactgggtgg agtccaccgc 720
 aagctcaagg aggggctgcc nggcctccgg tnnactcca acctctgcng ggcaagggca 780
 ata 783

<210> 4262

<211> 761

<212> DNA

<213> Homo sapiens

<400> 4262

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gtacctgtag ctgcggcgct gaggtcggaa cgtctgcgtg tgtgcgggct ggttttgtgg 60
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ctccagtcct tctctttcgt cagtataaaa gattaaactc tacagaagaa tgcaatcaag 180
tgatggcttt tcctttagaa tttgaatatg gaggctacag gaacagatga agttgacaag 240
ctaaaaacca aatttatatc tgcttggaac aacatgaaat atagttgggt gttgaaaaca 300
aagacgtatt ttagtagaaa ttctcctgta ttattgcttg gaaaatgtta ccattttaaa 360
tatgaagacg aagataaaac gttacctgca gagtcgggat gtacaataga ggatcacgta 420
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acattgagaa ctggccagat gctcttgggc tcaaggactc atactacact ttcttggnag 600
agcntgggac ctggccctga tgccttggn aatgaaaat tcaaactctg aatcaaggga 660
cttccanac tggtaaaaaa attttaacng caacaatttn gaagncatcc actttcaagg 720
gggaaaagaa gaaattccaa aaacccccaa acaaantttc c 761
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<210> 4263

<211> 662

<212> DNA

<213> Homo sapiens

<400> 4263

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aagtctcaat gtttaaggaa aaaagattta gaaatagtgg tttttaaaag tttgatggaa 60
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atcctgaggg atttggttgg tattgttttt gggttttctt cttgaaactc agtattaaaa 180
cactgaaaag tancagattt ttttctacct agagttttct gtttatccat catgagccca 240
aataaagtca caattgtatg ttacctgctt tacaagaag ccatttatgt ttaattgact 300
gttcattttg ctttcttgtc tgctgggatg acaaccgtga aattcagtct ggtagttttt 360
atgagttgga catgaacctt ttagaaatga tttaaagtat aaaatcattt ctcacagggc 420
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tttcaaaaca tanacctgtg atcagaaacc tggaatctag aaatttattc angacttgca 480
 agaatttgta gcatatctac attattggag atctattgaa agggcaagaa aaagatgatt 540
 gcccgttagt atcaacagtt atggtacagn caactatgag agaaaccttt tagatttggc 600
 agctgtatca ttaataangt gtcattgggc caattcnaan attacagtaa tcnaaaaatg 660
 gg 662

<210> 4264

<211> 735

<212> DNA

<213> Homo sapiens

<400> 4264

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 ggctgatata agctatcctg tccgaaaatc catccagcag gacgtcctag ggaccaggct 180
 tcctcaactg agcaagggga gccccgagga gcccgtagtg ggggtgcccc tggggcagag 240
 gcagccctgc cggaataatgc tccccgaccg ctgcggggcc gcccgggacc gggccaacca 300
 gaagctgggtg gactacattg tgaaggccaa gggcgcgagg agccacctgc gggccatcct 360
 aaagagcagg aagccatctc gctggctgca gaccttcctg agctccagcc agtacgtgac 420
 ctgtgtggag acctacctg aggatgangg gcagctggac ctggtggtga agtacctgca 480
 nggcgtctac cangaggtgg gggccaaggt gctccagcgc accaacggcg accggatccg 540
 gttcattctg gacgtgcttc tgccccgaggc catcatctgt gcgatctctg cggtggacca 600
 ggtggactac aaagacggct ganggagaag tacatcaagg ggccttcgct gagctaccgg 660
 ggaaaaagaa atatttgaca aaccaagctc cttttaaaaa ncgggaaccn gggngnccgt 720
 tccggtgaag gganc 735

<210> 4265

<211> 728

<212> DNA

<213> Homo sapiens

<400> 4265

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gagatcgggt gctggaaaac tctccgtctt tgctaattgga gtcgtgactt caattcaggt 60
cagtggaaatg gggcagtgct cactggctat gacggtaggt tcagcagttt gaaaatgaga 120
cctgcttcaa tcttcaactg ctggaaaatt caattatata ttattggatc gatatgtttg 180
ctacactata acccagaaca ttatgaaaac cagaaattat aattttatat ttaatatattt 240
ctaacggatg actctagggg aattgttaga ggaattgtca tgaccattgt ccagtttttt 300
tcctagattg gaacagagaa gtattaagaa gaaaactgaa attatctgta atgccacatc 360
acagggataa cctctgttaa ttttttggtt ttttttagc tctagatttc taaggatatt 420
tttctatacg tagattaaaa agatatacat atctatcttt ttaaagttaa aaagggatta 480
tattgtatag agggttttat atcttgcttt ttctctgtga tgctgggagc atttccttgt 540
aatgaaaagt tttcctaaaa ccacattcta ttgagtgaac acataagcca aggatggcgc 600
atacttgccg atgagagtcn aggccatctg tgacgatatg antggctcgt ttctttgcac 660
cttcttgttt acgtcagggc tattgaaaaa aggattgtnt taanggtaaa acgccggcna 720
aangggaa 728

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<210> 4266

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4266

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tataatgaag ccaagaaaac gctgacagag ctgaagactt acagtgagaa actggacaaa 60
gagcaagcag ccctcgagaa gatagaatcc aaagctgac caagtatcct acagaacctg 120
agagcacttg tagccatgaa tgaaaatctg aaaagtcaag aacaggaatt taaagcacat 180
tgtcgagagg agatgacacg actacagcaa gaaattgaaa acctgaaagc tgagagagca 240
ccacgtggag atgaaaagac cctctccagt ggagagccgc ctggtacctt gacctctgca 300
atgactcatg acgaagacct agacagacgg tataatatgg agaaagagaa actttacaag 360

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atacgtttac tacaggctcg aagaaatcga gaaatagcaa ttttgcaccg caagattgat 420
 gaagtccta gccgtgccga gctaatacag tatcagaaga gatttattga accctaccgc 480
 cagatttcag cagtgcacaa agaaaccaag cagttcttca ctttatataa taccctggat 540
 gataaaaagg ttatttgga aaagagatta gtctgctgaa ctcaattcat gagaacttct 600
 cacaggccat gggctcccct gctgcccggg accagttttt acgtcagatg ggaacagatt 660
 gtgggaaggg gattaagcan agnnnaatgg aagatgggaa angaaaaagc aagg 714

<210> 4267

<211> 736

<212> DNA

<213> Homo sapiens

<400> 4267

gtagttgcga gcgagagtga gtggggccgg gacccgcaga gccgagccga cccttctctc 60
 ccgggctgcg gcagggcagg gcggggagct ccgcgcacca acagagccgg ttctcagggc 120
 gctttgctcc ttgttttttc cccggttctg ttttctcccc ttctccggaa ggcttgtcaa 180
 ggggtaggag aaagagacgc aaacacaaaa gtggaaaaca gttaatgacc agccacggcg 240
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 tggctgaggg aacatggctt gttggcccca gctgaggttg ctgctgtgga agaacctcac 360
 tttcagaaga agacaaacat gtcagctgct gctggaagtg gcctggcctc tatttatctt 420
 cctgatcctg atctctgttc ggctgagcta cccaccctat gaacaacatg aatgccattt 480
 tccaaataaa gccatgccct ctgcaggaac acttccttgg gttcagggga ttatctgtaa 540
 tgccaacaac ccctgtttcc gttacccgac tcctggggag gctcccggag ttgttgga 600
 ctttaacaaa tccattgttg gctcgcctgt tctcaaatgc tcggagggtt tctttttata 660
 caagccaaga aaagacacca ngcatgnaag ggacaatgcg gcaaaaagttt ctgangaaac 720
 atttncaagc aanatt 736

<210> 4268

<211> 766

<212> DNA

<213> Homo sapiens

<400> 4268

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ggaattttta ggtgggcaca ttgtaaggca tgcccaggct catcagaaaa aaggcagttt 60
tgcattgtgt atatgtggta ggaaatttag aaacagagga cttatgcaga agcatttgaa 120
gaatcatgtt aagaagatac agaggcagca aattgctgca gctcaacagg atgacagga 180
agtcactgct ttggaagaaa taaattgttc tagttcttcc atttcatttg aaaatgggaa 240
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tattgaaaat gttattgaaa atggcagtc taataattct ttaaataatg tttcaagcc 420
tttaactgaa tgtggggatg attatgagga ggaagaggat gaanaagggt attatganga 480
agatgantat gacctgaatc aagaaacttc agtaattcat aaaatcaatg gaactgtgtg 540
ccatccanaa gacatatatg ccacagatca agaangaaac tttaagtgtc ctgctcntgg 600
ttgtgtccgg atatttaaaa gaattgggtt tccaaaataa acatgcaatg acccgtagat 660
ccaaccgatt taaatgtggc gacaaacagt atgaactggg caaaggaaat gcaaattttg 720
gcaangaat ttngatccc acattntcan nacttatggc atacta 766

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<210> 4269

<211> 729

<212> DNA

<213> Homo sapiens

<400> 4269

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aagtttcttt gaagctagag atcttcgcca gcacatgaac aaacatcttg gtgtgaagcc 60
attccagtgc caattttgtg ataagtgtta tagttggaag aaagatttgt attcccatgt 120
gaagtctcat tctgtcactg agccttatag gtgtaataa tgtggcaaag aattttatga 180
aaaagctttg ttcagaaggc atgtaaagaa agctacccat gggaagaaag gaagagcaaa 240
gcaaaacctg gaacgggtgt gtgaaaaatg tggaagaaaa ttcactcagc taagagagta 300

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taggagacac atgaacaacc atgaaggagt taagccattt gagtgcctta catgtggagt 360
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 ctatgtctgt cctgtatgta gcgaagccta catagatgct cgaacactcc gtaaacadat 480
 gactaaattc cacagagact atgtgccttg caaaattatg ctgggnaaaa agacancctt 540
 cagtttcaaa ancaaaggga ctcaagtggg cacatgctgt taacatctta acancaaggc 600
 atgcaggaac aagganaagc aagtgggcct caaggaactt gangactggt gggaagtgac 660
 aaggagaaaa ctattgggaa agcctccggg aaanctggtt ngcangctaa ctggaaagag 720
 gtttnccaa 729

<210> 4270

<211> 741

<212> DNA

<213> Homo sapiens

<400> 4270

taggtggcag tcgcaacca tactattcgg acagatggca cagaaaccgc tgcgcctctt 60
 ggcttgtgga gatgttgaag gaaagtttga tattttattc aatagagttc aagcaattca 120
 gaagaaaagt ggaaactttg atctgctgtt gtgtgtagga aatttctttg gctccacca 180
 agatgctgaa tgggaggagt ataagactgg catcaagaaa gctcctattc agacatatgt 240
 gcttgggtgct aataaccagg aaacagtaaa atatttccag gatgctgatg gatgtgaatt 300
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 tccaaggat gtgtcttctc tgagaatgat gctgtgtaca acctcccagt ttaagggtgt 480
 tgatatcttg ctacatccc catggcccaa gtgtgtgggg aactttggga attcttctgg 540
 gagaagtgga taccaaaaaa tgtggntctg ctttggnttc cagtcttgcc acgggcttga 600
 aaccaagata ccattttgct gctttgggaa agacctatta agangaggct tccaatatcc 660
 gaaaccatat cattcctaca ggaaaatgga nagcaatgnc anccgggttt aaanctcctg 720
 gaaaagggtt ggaaatccca g 741

<210> 4271

<211> 723

<212> DNA

<213> Homo sapiens

<400> 4271

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gcacaaagat agactactgt gcctcatcta atcacgatg tcaagcacga gtgtgttaac 60
acagatgatt cctattcctg ccactgcctg aaaggcttta ccctgaatcc agataagaaa 120
cctgcagaag gatcaactac tgtgcactga acaaaccggg ctgtgagcat gagtgcgtca 180
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cgtgtgtaag cagtgaaaga ttcgtttgtg tgccagtgtt ttggaagggt atatactccg 600
tgaagatggg aaaacctgca gaaggaaaga tgtctgccaa agntattaga ccatgggggtg 660
tgaacacatt ttgtgtgnac agtgatgact catacacgtt ncaagtgnnt tggangggat 720
tcc 723
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<210> 4272

<211> 749

<212> DNA

<213> Homo sapiens

<400> 4272

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ttttgactta taaacaatgc tgcaatgaaa taattgacat atttccttgt gtacatgtga 60
gcatttccttg agatatgtat ctagaacttg aatcactggc caacaggata ttcttaattct 120
tcagtttcac cagatacttc caaattgatc tccataacat gcataccaaa ttatattcct 180
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accagccatt tataggagtt cacatTTTT ccataccctc ccaatcctgc cttggcagat 240
 atgttttttc caatgaataa caatgaaatt ttgttttggg atttgacaaa atgattctag 300
 attcatctgg aagaaaagca agtataagta agaaatttaa aaggggacctg aaaaactaag 360
 caatggatat atttaaaaat tgggtaccagt agggataacc aaatatttgt taactgtagc 420
 aagaacaat gcatgttttt ctactgggtt ccaccttcta tctctcagtc aagccctgcc 480
 cagggtgtgg aagtcctcat agtctctcac tgtaggggtc ctctcacata gtaagaccac 540
 tctcttggag ttgaatattg gaaaagaang cttggncggg ggcaatggct catgcctgtg 600
 gtcccagcac tttggggaag ctgagtcgan cgggattgcn tgagggcagc agttcgagan 660
 cagcctggac taacatgggn gatgaaagta caaaattaac tggggggtgg tngggcaagg 720
 cctgcaatcc cagntacccg ggaaggntg 749

<210> 4273

<211> 688

<212> DNA

<213> Homo sapiens

<400> 4273

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 ttttgaigct atatttagta gacagggtgg agaccctgtc ctttaaggagc tgttgtcctg 120
 aaaataagta gggcacatat aaatgtccaa agagacctaa accatttttg ctgtttcctg 180
 aggatacatg tcttttgccc ataactcttc tttacttttg tcctgtttgt cttaaaggta 240
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 attgcaatcc actacttaa agtacaccac ctgtctttct cccagctctc tgtaaaaata 540
 aaagaacaag ccaacaaat caaaatttcc atagatttgg gcactgggtga atttgacaag 600
 ctctccact ttaagtcc taaagatggg ataaaattgg ggaanaaatn cagattggcc 660
 ttccccaan ggaangtaat angtttcc 688

<210> 4274

<211> 816

<212> DNA

<213> Homo sapiens

<400> 4274

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acaggaaagc gaacgagtc tgttctaata ctgcaccttc ttttaaccgtc cctgaatgtg 120
ccatttgtct gcaaacaatgt gttcatccag tcagtctgcc ctgtaagcac gttttctgct 180
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atgagcgcac tagtagagag ctggaagatg ctttttccaa aggtaaaaag aacactgaaa 420
tggttaattgc tggctttctg tatgtcgctg atcttgaaaa catggttcaa tataggagaa 480
atgaacatgg acgtcgagg aagattaagc gagatataat agatatacca aagaaggagg 540
tancctggact taagctagac tgtgatgcta ataccgtaaa cctagcaaga gagagctctg 600
ctgacggagc ggacagtgtg tcagcacaga gtggagcttc tgttcacccc ctagtgtctt 660
ctgtaaggcc cctaacaatca gtagatgggc agttaacaaa gccctgcaac aacatcccct 720
gatgcaagca cttctctgga agactccttt gcncatttac aactcantgg nggacaacac 780
agctgaaaag ggtcataagg gagaaagggg aagnan 816

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<210> 4275

<211> 732

<212> DNA

<213> Homo sapiens

<400> 4275

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ccttgaccat cctgagagat gtgatcctgg tgttgatgga agggaccccc aagggcgttg 120
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 tgcataatctg ggcaactgacg gtggcccagc ctgttctgtc tgtccacatc gccattgctc 240
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 catgccaggg cccctcagac tgactgctca gccaggcacc aactggggca tgaacaggac 420
 ctgcaggtgg ctggactgag tgtccccag gccagccag gactttgcct accccagctg 480
 tgttataaac cagggtcccc tcctgacctc tgccccactc caggaatgga gctcttccca 540
 agcctcccat ctgactacag ccagggtggg gactcagcgg gtataaagct agtgtgacct 600
 tgctcttcca gctcctgggc cagctctgga agggctgtat ttgggcctaa tcctcaacaa 660
 ctgttctacc actcgcaggg gcaaangtgg tnaagccacg gnacntcaan gggggaaggc 720
 tgggccccaa cg 732

<210> 4276

<211> 558

<212> DNA

<213> Homo sapiens

<400> 4276

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 ttgccaagta ctgtcccagt tttagcactg aaagtccac atctcaggaa acccttcagt 180
 cctgcgtaag caaggacaac tggtgacccc agatcgaagc tgtgcaatta ggaaggggac 240
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 gagaantaca gtcatttgct gcaggaatca actcgtcccc tagatatcgg ttcccttatt 360
 cancaactgt ggctgctat aggagtcaat ttcttggttac ctttggtcag gggaataaga 420
 cttacttttg agtttttcat ggttttccca gtcctccccg cccgcencaa caagcttccc 480
 ctctctaant gcaacaggaa ncctcctctt aaagggaang ttcctggnc tctatctcac 540
 tgctcttttc ccagagga 558

<210> 4277

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4277

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gagtaaaacc gccgcccggg agaagactga aggagcagtt gccgccgttg gcggcggccc 60
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tccccggggt gtaataatgt taactgagtt atattgggag ctagtttcaa gatgaaatac 180
taattctaag ccagtctatc catatgggga tggggaagcc ttggcattgt cttttttctg 240
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gggggttttag tggttactct cctgcttgga aaaacaaact cagagaagta cctagaacag 360
tgtgaacact ctttcttcc tccaacatca cctgggggttc ctaagtgtt agaagaaatg 420
aaacgggaag ccaggactat taagattgat agaagattga cgggtgccaa tataattgat 480
gaatctctcc agcaagttat ccagttttcc ttgagggtt atgtccagta ttggtattat 540
acactaagcg atgatgaatc ttttcttctt gaaattaggc agactcttca aaacgcactc 600
attcagtttg ctactangtc aaaagaaata gactgggcaa cttatttta ctacacgcat 660
tgtagattga ctttggcaca cacttacgag tattcaanaa nggtcaaaca gaaaataacn 720
aggaaangat gatcaaagtg aaaaggtaca nca 753

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<210> 4278

<211> 776

<212> DNA

<213> Homo sapiens

<400> 4278

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agcagtcagc cggccggaga cagagacttc acgactccca gtctcctcct cgccgcgggc 60
gccgcctcct ctttctctcc tctctctctt cctcctcctc cctcgtctcc acagccatgt 120

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ctgcttagac cagagcagcc ccacagccaa ctagggcagc tgccgccgcc acaacagcaa 180
 ggacagccgc tgccgccgcc cgtgagcgat gacaggagtg tttgacagaa gggccccan 240
 catccgatcc ggcgacttcc aagctccgtt ccagacgtcc gcagctatgc accatccgtc 300
 tcaggaatcg ccaactttgc ccgagtcttc agctaccgat tctgactact acagccctac 360
 ggggggagcc ccgcacggct actgctctcc tacctcggct tcctatggca aagctctcaa 420
 cccctaccag tatcagtatc acggcgtgaa cggctccgcc gggagctacc cagccaaagc 480
 ttatgccgac tatagctacg ctagctccta ccaccagtac ggcggcgcct acaaccgcgt 540
 cncaagcgcc accaaccagc caganaaaga agtgaccgag cccaggtga gaatggtgaa 600
 tggcaaacca aagaaagttc gtaaacccaa ggactattta ttccagcttt cagctgggcg 660
 cattacagag aaggttcaca agactcagta cctcgccttg ccgggacgcg ncgagctggc 720
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<210> 4279

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4279

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 cgaggatcatg ccactgcact ccagcatggg caatagagcg agactctgtc cccccgaaa 180
 aaaagaacaa gggctaaatt caaatcaaat tttccctgta ccctaagaaa aataattagg 240
 ccgggagatg tttgactaag tgagtaggca ttgttctgtg acggtctgag cccagacct 300
 ttcctctgga tgaatgctgt cccaggtaat gaaatgactt cacttattaa tatataggta 360
 cacagagttc aggtagatgt ggaatgaatg gggactcgcc ccgtctgccc ttgaatgtat 420
 ttagtggttt atgtgaaatg tacctttcaa agttgtctgt atgtttcata ctctgggggt 480
 gggaatataa atcattgcag cttttttgta gggcactttg gcagtactca tcaaaatatg 540
 cgatgtgcag atgcttagcc agcaactccg cttctatgaa tctagccaac agaaatactt 600
 gtagaagtgt gcagctataa atgtccacaa gaggctcaga gcctcattgt ttttaatagt 660

gaacagttagg naaccaaata gatgtctgtc agtagggatg tggcagaatt gtggcatgtt 720
 ttatatgggt ataaaaagt attggangga acataaaccc aactggttgg naagaagtta 780
 acctctggga tncaggnata aggtangggg tt 812

<210> 4280

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4280

aaaacaacta cgtgctgcgg tgtggttggg ggtgagatga cgaccttagt gctggataat 60
 ggagcttaca acgcaaaat cggttacagc catgaaaatg tgtcggttat tcctaattgt 120
 cagttccggg caaaaacagc acgtcttaaa acttttactg ccaaccagat agatgaaata 180
 aaagaccctt ctggactctt ttacatcctc ctttttcaaa agggctactt ggtgaattgg 240
 gatgttcaga gacaagtttg ggattacctt tttggaaaag aaatgtatca ggttgatttt 300
 ttagatacta atattattat cactgaacca tactttaact tcacttcaat tcaagaatca 360
 atgaatgaaa ttctatttga agaataccag tttcaagcag tattaagagt aaatgctggg 420
 gctctcagtg cacataggta tttccgagat aatccttccc gaattatgct gtatcattgt 480
 tgatagtgga tttccttta cacatatagt tccttantgt anaagtaaaa agaaaaaaga 540
 agcaattatt cggataaatg tgggaggaaa actcttaacc aatcatctaa aggagatcat 600
 atcttacagg cagctacatg ttatggatga aacacatgtg attaatacaag tgaaagaaga 660
 tgtatgccan ggtgtcccaa ggatttttat agagacatgg atattgcana gttgnaaagg 720
 agaangaaaa ttcaagtaat natagaacta 750

<210> 4281

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4281

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aacaacttta gtacttggct ttgtgtgaaa gaaaacagaa ttcctatgt aatacccaac 60
acaccatact catgcaataa atattgggtga atacaggtgc tgtactagag atgacaaaag 120
tacaattaag agtcctatatt ttcactggat ctactagtgt aataaggatg ccatatacta 180
aagcatagaa aagttaaata tccattccct ataaaatcta agaaatacta tgcagtaata 240
tgtcataaat tgccaaaata taatttactg taatacagaa aaagatctgc acctatgtat 300
gaaaagattc tcagaaaact aagaataaag ggaaattcta acttgataca tcctgtgcac 360
ctcaagtcta tagcaaaagt tacatttcat tgagaaattt tgagcacaat ttaagtaaga 420
ggagaagata agaaagaaga aataaagttc actattcgta tatgatatag tcatttgtat 480
aaaatccaaa acagcaaact actagaactg agaaaattca gcaagggttg tctaataata 540
gattaattta taaaaagcag ttgttttttc tataccgaga gatcagcaat cttttttaa 600
tgttttcagc tttgtgggcc atatggtctc tgcataact ataactgctg atgtagtatg 660
aaagcagctt agacatcatg tcaagacatg ggcaatgcct gtgttccaat aaaagctttc 720
ttttagtaga atngcaagcc ntgggatttt gggcctgtga gnccataaaa tttctaaacc 780
cccngccaat ttatcaaggg gggaaacccc aacttttgn aaaa 823

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<210> 4282

<211> 521

<212> DNA

<213> Homo sapiens

<400> 4282

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tttaattgat gctaaccata gtgatgggag atcnttgctt atacaggaga acataattta 60
ttatcttatt ttaaaataaa cattacacta aaaccccaca tcatttcaag aaatgtgggc 120
aatagtagtt attttattat tatacgtaac ttttaaaaat aacaagatag acaaaatgtt 180
tgagctacat gcacatgaaa agtgaaattt acaaaaagct taagaaatgg atccaaaagt 240
atatttaagc acttcctctg aaaccctcat aactaacana atatgaaaaa acaataaatg 300
tggtttataa accagaaagc ctaaaaaatc tcttctaag ctatttttat taaaaatgtt 360
tactcattaa tattttaatt ggaactttgc atcatctcag gtagaacgtg agtctcctgt 420

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cactatattt anacaagaat gtcctaaaag nttgtcnatt ttctgaaaaa tagcctctgc 480
 ttcccgaatg gttgctgctt gcttactnng aaatatgcaa a 521

<210> 4283

<211> 698

<212> DNA

<213> Homo sapiens

<400> 4283

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 ctggacagga ctgaaggctg ctgccacctc tgcagcgctt gccattctca caccacccc 120
 tctgcccagt ttgctgcgt cgcgtgaagg atcctgcgtt ggcgcccca cctggtgatg 180
 ccgagtcctt gggggtggtt tgctgtgact gcatgcggcg cgcagcgggt atatgtgcag 240
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 actctggtca ctagaggttt ggggcatagg gtttggaag gccaggaagc gtaaaggggc 360
 ttctgggggt cccgaagtag cacgggaggg tggggcaggg ctggtcacgc ctcctgtgct 420
 cgggcagaac aacttcgagg agccagtggc actgcaggag atggacacaa gcaacggggt 480
 cctattgccc ttttacgata ccgactccag catcgtctac ctgtgtggca agggcgacag 540
 cagcattcgg tactttgaga ttaccgacga gccgcctttc gtgcactacc tgaacacgtt 600
 cagcagcaaa gagccgcaac ggggcatggg gtttcatgcc caaaanggga ctgggattgt 660
 caagcaaagt gtnagatnn ccccggtttc tacaanct 698

<210> 4284

<211> 780

<212> DNA

<213> Homo sapiens

<400> 4284

atcatatgat atctaagtcc acattaagat gttcccacaa atatttggtt ttgaaccagg 60

attcagtcaa ggctcgtgca ttccatttag ttatatttct ttagtctctt aatgtaaaac 120
 tttccaccta ttatttttcc cctgtgtcat tgactttcta aagagaccag gcctgttcta 180
 ccaggatttt taaaagggtg acattgccag agggaagtta atgtttctct gaaggtatat 240
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 taagttttgg cattaagtac tagagcatat attgtgtaaa tgtttccgcc agccaatgtg 360
 gctgatatct gttttaaagg tctcatttaa aatttagtgt ttttagtata agttactttt 420
 tggggacata aatatgcata tgatttggtt aaaaatttgg attgtaaata aaggtttatt 480
 tacctatgtg attcagttaa atttttaagt gttaagtggg gtgaattttg tgacactggg 540
 agaaagtttg catatcaggt atgaccttag aaagtaacaa atagatttgg tgcattacat 600
 cangcatgtg gaangataga ttgtctcttc tgttcataaa gaggtcattt acaaatttat 660
 naggagctaa actgactaag tacttgggaa atctgtactt gtaagctaata cacatttacc 720
 caaanccgga tttagnaata tanaagggtt ttaggggaat tgtttggaan ttttaaaaaa 780

<210> 4285

<211> 741

<212> DNA

<213> Homo sapiens

<400> 4285

agattcactt tgtgtttatg catgcatgca cgcgtgcaca caattctatc agcagctgta 60
 aactaccac atattttctt aatctcattt ttccagtttt tcttcattct taaaagaggt 120
 tacatttcat tcttggtcaa ctcttaaaaa gaattatgta atgttgggcc ttcatattaa 180
 agagagagac tggttataag atcctttaca gtccattcat tttattctga tgtctaacca 240
 gatagacact agcaagcaaa acttccctct taatcctgga ccaaattgcat aattttactg 300
 tcactttcaa aaatctgtta tgactgaatc aaaatccttt taaagaaagg aaaaagctcc 360
 ttttgtgtca aatagttgaa caacatgaaa acagtatgag ccggttaaag atagattgaa 420
 tttttacttt acacatatga aaaacagtaa gttttgactg ctgtgtatgt tattcatgtt 480
 aatatgtgct cagttattca ctattgttaa tccacatata atcagttgct atccctgggt 540
 agacacacta tggaacttga aatgcacaat atttacattg ttagaggctt ctatccaaat 600

atctgcattc ctttaaaatg tgaactatatt gctgggtgatt aaccaaaaagg gaagattang 660
 tcatcagtgg gacatttttag ntttaangga aacaaattat taagaaatgg aatagaaaag 720
 ggngtccttt cctttggggn a 741

<210> 4286

<211> 786

<212> DNA

<213> Homo sapiens

<400> 4286

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 aatttcactt gatcatgacc gtcgcgtccg agaagccaca caacaagctt ttgaaaaact 180
 tatccttaaa gttaaagaaac agttggctcc ctacttaaaa agtttaatgg gagattggct 240
 aatggctcag tgtgatactt acacaccagc tgcgtttgca gcaaaagatg catttgaagc 300
 ggcttttcct ccaagcaagc aacctgaagc catagcattt tgtaaggatg aaattacaag 360
 tgtgctgcag gatcatctta taaaagaaac acctgataca ctcagtgacc cgcaaactgt 420
 tccagaggaa gaaagagaag ctaaattcta ccgggttgta acttggtcct tattggcatt 480
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 gtctctttta tcacagaata agtttttgaa gtatggaaaa cacaagtgt cctcaagatt 600
 cgctcagctt attttgagtt agtctctgca ttgtgccaac gcantccaca gttgatgaaa 660
 gaggaagcat ccaaagtgag cccatcagtt ctacntagca attgatgaca gtgaccaat 720
 ttgtctgccc aagctctccg gggaanctgt ncncnataca cttacaacta attggaggga 780
 ctgggtt 786

<210> 4287

<211> 726

<212> DNA

<213> Homo sapiens

<400> 4287

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agaagctttt tcatttattc gtccaagcag catcttgtac tagtcctgac tggaaattta 60
tcagtgggtgt ggttcctcgt gcaacaaata tgaacgtctg aaggcaaacc aggtagctac 120
tggcattcgg tacaatgaaa ggaaaggaag gtctgaacta attgtcgtgg aagaaggaag 180
tgaaccctca gaacttataa aggtcttagg ggaaaagcca gagcttccag atggaggtga 240
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tgaaacacca atcttcaaac agttttttta ggactggaga gataaagatc agagtgatgg 600
cttcgggaaa gtttatgtca cagagaaagt ggctcaaata aaacaaattc cttttgatgc 660
ctcaaaatta cacaagttcc ccgcagatgg caaccangc acaatntggn gggangatgg 720
ttctgg 726

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<210> 4288

<211> 707

<212> DNA

<213> Homo sapiens

<400> 4288

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aaacaagaga agcgagatgg ttccaagcac aaatgatcct tatgtggctt ttagaaggcg 60
tactgaaaaa atgcagactc gaaaaaatcg caaaaatgat gaagcctctt acgaaaaaat 120
gcttaagctg cgacgagatc taagtcgagc tgttactatt ctagagatga taaaaagaag 180
agaaaaaagt aaaagagagc tattgcactt aacactggaa attatggaaa agaggtataa 240
tttgggcgac tacaatggag agatcatgtc tgaggttatg gcacagagac agccaatgaa 300
acctacttat gccatcccca tcatccctat tactaatagc agtcaattta aacaccagga 360
agcaatggat gtgaaggagt tcaaagttta taagcaagat aaagccgatc ttatccgacc 420

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gaaacggaaa tatgaaaaga agcccaaagt cttaccatcg tctgccgctg ctactcccca 480
 acagacgagt cctgctgcac tgccagtctt caatgctaaa gatctgaatc agtatgactt 540
 tcccagctca gacgaagaac tctctcccag gttttgtctg gctcttcgga agctgangga 600
 agacaatgat cctgatggtc cttttgcctt ccgtanggaa agcaggctgt cagtactaag 660
 gcncctcact tagancaaaa ctgggaactg ggccttggnc aatnccc 707

<210> 4289

<211> 909

<212> DNA

<213> Homo sapiens

<400> 4289

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 agcttaataa aataaccgtc cccgccagtc agaagttgag gcagcttcaa aagatgggtcc 180
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 aagtcccacc caaacccaaa ggcctccttg aggatgaggc tgattatgtg gtccccgtgg 660
 aaagataatg atgaaaacta tattcatccc acagaaagca gttcaactcc aacctgaaaa 720
 agtccccaag ggtgaataga tnaaccaang ccaaatttcc tcaaangccc gnetctctc 780
 caaggaacaa gcttaaggtc caaaacagtg ggggcctggg gaaaccaagt cacctccaac 840
 aaagctncaa caatnccccg ttgccaaagg ggcccgggga aaaaaaccaa cgancancca 900
 ctggangac 909

<210> 4290

<211> 729

<212> DNA

<213> Homo sapiens

<400> 4290

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gtagaaaacc aagagtgaga aggagttact gtgccggctg cagaagctgc acctccagca   60
ccagaacgtc acatgtgaga aggaaaagct gctggaacgg cagcagcagc tgcaggagga  120
gctgcagtgc catgaggcag agctgcagca cctcagggat acggtggcct ctttcaaaga  180
gagcaatgag aaggacacag agacgcacgc tcagcttcag gagatgaagc agctgtacca  240
ggtcagcaag gacgagctgg agcggcagaa gcacatgtat gaccagctgg agcaggacct  300
cctgctctgc cagctggagc tgaaagagct caaggcctcc caccatc cggaggacaa  360
aggaaagtgt gctaataagt gtgacacact gctgtccaga ctgacagaat tgcaggaaaa  420
gtacaaggcc agccagaagg agatggggca gctgcagatg gagcagtgtg agctcctgga  480
ggatcagagg aggatgcang aggagcaagg ccagctgcag gaagagctgc acaggctcac  540
actgccactg ccaaagagtg gnetcttact caagagtcag gagctactca ccaagttaga  600
agacctgtgt gaagctgcan ctgctctacc aaggcatgca aggagggaac agaagaagct  660
tgattcaaga acccaanact ggtgtattta aaangaacaa ttttnnagat tccaacgaaa  720
naagctggc                                     729

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<210> 4291

<211> 836

<212> DNA

<213> Homo sapiens

<400> 4291

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aaccaattgc accacgaccg gatggaagag cccagctgac acaaccaaga cgagtctcag   60
tgtctaggga agcttggggg tctgctcctt ttacttcagg cgaacctgaa ctcagttaat  120
gcaattttga agcatgccct gaatagattc agtcattatc aagtcaaact aaaaacggtg  180

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aaaggttgcg actattacca aataggaaaa acctgaagac ataagaacta cacatgagga 240
 atatgtcatt tagcactttc actttttgat ctccacagaa gacaatgaga agtcatacca 300
 taacaatgac gacaacttca gtcagcagct ggccttactc ctcccacaga atgcgcttta 360
 taaccaatca tagcgaccaa ccgccacaaa acttctcagc aacaccaa atgtactacct 420
 gtcccatgga tgaaaaattg ctatctactg tgtaaccac atcctactct gttattttca 480
 tcgtgggact ggttgggaac ataatcgccc tctatgtatt tctgggtatt caccgtaaaa 540
 gaaattccat tcaaatttat ctacttaacg tagccattgc agacctccta ctcatcttct 600
 gcctcccttt ccgaataatg tatcatatta accaaaacaa gtggacacta ggtgtgattc 660
 tgtgcaaggg tgtgggaaca ctgttttata tgaacatgta nattagcatt aatttgcctg 720
 gattcatcag tttggattgc tatataaaaa ttatccggtc tatacaagca accgganggc 780
 aataacaanc aagcaaaagt atttaggtcc ggttgtaaan ntangggatg ccttgc 836

<210> 4292

<211> 897

<212> DNA

<213> Homo sapiens

<400> 4292

aaatacaggt tgacaagtgc taagagagaa gtcagaggct gtgggaacag agaggaggag 60
 tatctaacca gcctggagta tcnggaagac ttcctgaagg aggagaaaac acctgggcta 120
 aatcttaaag gaagaccaga agctaccag ggaaagaagt gaaggaaggc attataaaca 180
 gagaggccag gagattccag cctcagcatt cccagagaag gccagagatc tccctgagag 240
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<210> 4293

<211> 739

<212> DNA

<213> Homo sapiens

<400> 4293

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 caatctcaat tctctgccat cttctccct gcccgccat atacaattcg ttctcggttg 660
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<210> 4294

<211> 519

<212> DNA

<213> Homo sapiens

<400> 4294

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ctggggaana angtggangt gganccgccc ccagatcgg 519
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<210> 4295

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4295

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gcaaagggtg tgagccacgg gacgtccaag gggaggctgg gnccagcgn gcccatactg 660
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cctgcctcat gccccattct caaccctggc tgggcctttt gcctttaatg aaatctggag 720
 cccctccaa tctgccctaa tangcaatta ggcaaccggg ggggttnnan ggaaccntc 780
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<210> 4296

<211> 702

<212> DNA

<213> Homo sapiens

<400> 4296

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<210> 4297

<211> 629

<212> DNA

<213> Homo sapiens

<400> 4297

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<210> 4298

<211> 805

<212> DNA

<213> Homo sapiens

<400> 4298

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gcctgcantt caagggctgg gantttgttt aanggaattg acctccaacc caactgcccc 720
aatgttccaa ctgggggctg gcccgaangc tgcaatggtc aanctgaag gggcctgggc 780
aaaggaaang ggggccnaan aaaat 805

<210> 4299

<211> 719

<212> DNA

<213> Homo sapiens

<400> 4299

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<210> 4300

<211> 757

<212> DNA

<213> Homo sapiens

<400> 4300

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 gacatgaaag ccacgacata caagatffff gcttcagaga aaccagaaa aatgtacatg 180
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 aagctgaagg gaaaatatat aaatatgac acatggaaaa atctgtcaac agtagttcct 420
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 aaaaatcaaa ccttgcaagt catcaaagaa ttcatacngg agangaagcc atttaaagt 720
 aatgaatgtg gcaangnct tccatatatg ncacacc 757

<210> 4301

<211> 861

<212> DNA

<213> Homo sapiens

<400> 4301

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<210> 4302

<211> 725

<212> DNA

<213> Homo sapiens

<400> 4302

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 tttcaatgca tagttacaga aattcctgaa gattccccag gacttcaatt tcattgggtt 180
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 cagaaatatt taacagatta cttcttgata aaatttaaag gggattatat gaatttataa 480
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 aaaggattta ttttagaata caatctatgc aatcctcgaa ctgagtgtgc tttccctga 600
 caggatatat aaaaaggtag attaggtcaa cctccttta agcttactct cccctcacct 660
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<210> 4303

<211> 652

<212> DNA

<213> Homo sapiens

<400> 4303

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taaagcttta ggttccaaga agattctggg actcaggaag aaaaagtgcc atcaggtgac 180
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tggggtcact aactggttgg ttaactgagc taagaatang ctgtgggtcn cctcacttgt 600
gggccantgc tccttcggc tatacaaaat gtccaatcnc anaattttcc tc 652

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<210> 4304

<211> 807

<212> DNA

<213> Homo sapiens

<400> 4304

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gtgaaatagc atagtatttt ttgtctttt gttactagt tgaacaaaga acggcgccta 180
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ctcagcttcc caaatagcta cgactacagg tgcattgcctc catgccctgc taatttctgt 480
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 gtggctcaac acctgggttaa tccccagcaa tttttgggga aancccnagg gcaanggggg 780
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<210> 4305

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4305

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 acataacggn tgtgcaatgg gatgtccaac gcttctgggg ntggggccgc caaggacnac 720
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<210> 4306

<211> 824

<212> DNA

<213> Homo sapiens

<400> 4306

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tgaccgaact gtacgtgaag gtgagagaaa agctgccaaag ctgcatttta gtcagttggg  180
caacagtga aattttcttt tagaggtgga aaaaagctct agggagaaga caatgaaaaa  240
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<210> 4307

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4307

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cagcagctct gctcggaag aaggcacggc ttctgctctt aagccaagtg gtcttttcaa  180

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aggccttctt taaaatcgct cagatgggtg cttttgagtc tgcgggtctg gtttctgaaa 240
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<210> 4308

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4308

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 aaaatgtgtc ctactaaagg ttaacctttg gnaatgctgg nggttctgtg attctccaan 780
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<210> 4309

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4309

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 tgctacgcgg gttttaggat cagatacaag gaggatcnac caagaaatcc tgctggccca 660
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<210> 4310

<211> 661

<212> DNA

<213> Homo sapiens

<400> 4310

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cttcctgtgg tatactgatg agcagaactc ttccactaca tacctcaatt ttgcctaagg 180
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tggaggatta caagcatttt gticcttggt gcaaaaaatc agatgttata tcaaagagat 360
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tgtaccttgg gatttttcaa tttcttttgn atttcgatca cttctacatt cccagcttgc 600
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t 661
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<210> 4311

<211> 756

<212> DNA

<213> Homo sapiens

<400> 4311

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tagactcttg cctgtcagag gagctgttga atgtttattt gaaatgggct ttgaagaggg 180
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ggtctatgaa aatcctgctc ttcaggagaa agcgttggct tgtantccgg tccaagaact 540
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aaaaaggaaa tcacaagaaa agttatcgag agctagaaaa ttggataaag atataatanc 600
 cctgaagaaa cttttggaaa caaagatgtg gacggtgtgg cgagtgggcc aattgtttta 660
 cactgggctg ccgancgtga gggtttgaag ctccgctatg tttgggatta cgcangacca 720
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<210> 4312

<211> 878

<212> DNA

<213> Homo sapiens

<400> 4312

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 caaagaatca aggcgatagt gccagaaagc agcctggctc atccacctcc agttcttctc 180
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 taatgttaga tgtgacagat acaagtatgg atacttattt ggaaagagaa tgggggaata 360
 aaccaagtga ctgtgtaccc tacaaagatg aagaacttta tgatcttcca gctccttgta 420
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 aaaatgaaaa gaaatcagaa tgtttttctt ccccaaagac aggatttttg ggactgttgt 660
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 aattctgttg gagaaatata ctcaaaaantt gaggtgagga aaatcaaggc ttaaggttta 780
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<210> 4313

<211> 633

<212> DNA

<213> Homo sapiens

<400> 4313

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ccagggacgt ttactggggc tgagggcaaa taaaacctca ggtgtaccag gaaatcgctc 360
tggaagtgtg atccgtgtat atggtgatga aaacagtgat aaagtgactc caggacatt 420
tataccctat tgttcaatgg cacatgcaca gctttgcttc catgggcacc gggatgctgt 480
gaaattcttt gtggcaagtc ccaaggtcaa agtcatcagc ccacaaagta gcagtagtgg 540
cacggatctg acgggtgaca aaagcaaggc catctgcaca aggagcctgg gtaatcannc 600
gcccttngaa gtctangctt gtcatcaagt ggn 633

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<210> 4314

<211> 762

<212> DNA

<213> Homo sapiens

<400> 4314

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ggctgatatg ttgagcaggc aaggaggact tcttgtaat ttccatcctt caattctgac 180
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gttgtcagag ttgtccaaaa atgattctat gtcaacaaca agaacctaca tacaatgtat 360
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tttgggtgggt aaaatTTTgc aatgtagatg atgatgaatt aaaagagtac tgtattcaag 480
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 tataaatatt tgtcttaaT atcttaccta tgatccaaat tataattacg atgatgaang 600
 atgaaggatg aaaatgcaat ggatgctgat gggTggTgat gatngatgat caaggggagt 660
 gatgatgaat acagtganga tgatgacatg aatttTgaan gtganacgtg canctggcga 720
 aagtggcttg ggatgcctgg taanttaagc aacaagggca at 762

<210> 4315

<211> 830

<212> DNA

<213> Homo sapiens

<400> 4315

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 aaccagcaaa catctccatc tgaggagctt ctattagaag accagatgag gcgaaaactc 180
 aaattttttt tcatgaatcc ctgtgagaag ttctgggctc gaggtagaaa accatggaaa 240
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 gtctccgttg ggaatcatgc ttatgagaac aaaggtacca agcaatctgc tatggcaatc 360
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 ccagaaattg aaactgagtg tttctttgtg gagccagatg aaccttttca cattgggaca 480
 ccagcagaaa ataaactgaa cttaacactg gacttccaca gactcctaac agtggagctt 540
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 agtttagata atgacatttc catcagagga atgtaaagac tggcatgtat ccgggatcaa 720
 ttcagaagaa cactccatta catgangatc tttgntgcct ttggcattct gacttgcttg 780
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<210> 4316

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4316

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atgctttact ctgttttgga cttttcttt tgaaaaattt tgagatagaa acctaatat 180
catttcatat atttacagca catagttaat ttgagtagag tcaaattaat cttactttag 240
aatttgatta ctaagtatta gcatggataa taatgcttct ttgcttaaa tgtaaaaatt 300
aggccgtttt actaggtgta ctttgtctta atcatattcc tattttttta tacagctgtg 360
caaccatatt gcttctggga aaaaatgtca atatgtggga aactgttcct ttgctcatag 420
tcctgaggaa agagaagttt ggacttacat gaaggagaat ggatacaag atatggagca 480
attttacgaa ctatggctca agagtcaaaa aaatgaaaa agtgaagaca tagccagtca 540
gtcaaacaag gaaaatggaa aacaanttca catgccaaca gattatgctg aagttacagt 600
gggactttca ctgctggatg tgtgggaaaa ctgcaacagt gagaagcagt ggcagggcca 660
catctcctcc gagaagcaca aagagaaggg tttccacacc ganggacgac cantacctgc 720
tgncaagcac ngccttccca acaaggctat ttcaggtatt ggtgacnagg tata 774
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<210> 4317

<211> 680

<212> DNA

<213> Homo sapiens

<400> 4317

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aggacggggc ccatgtggtc gtcagcagcc ggaagcagca gaatgtggac caggcgggtg 240
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ccacgctgca gggggagggg ctgagcgtga cgggcaccgt gtgccatgtg gggaaggcgg 300
 aggaccggga gCggctggtg gccacggctg tgaagcttca tggaggtatc gatatcctag 360
 tctccaatgc tgctgtcaac cttttctttg gaagcataat ggatgtcact gaggaggtgt 420
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 anaccctggc catanagctg gccccaaagga acattanggt gaaactgcct aacacctgga 660
 cntatcaaag actancttca 680

<210> 4318

<211> 758

<212> DNA

<213> Homo sapiens

<400> 4318

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 cttecttctt agtctccatc ttctccagga gccagaaaaa aaggagagag agagcatcag 120
 gtggcactgt ttatgggcct ttcattggaag tgacacctgg gggttacttct gcttatgttc 180
 ctttggacag aattcagttg aatggtcata ctagaggcat tgtgccaggc tttgcagcat 240
 aaaaagaagt tagagacagg gactttggat ccaagtcctc cctgactcaa aaccagaga 300
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 gagtctacgc aacttggtt catatcagtt cttgccatct cgggatccaa atgctctcca 660
 aggcattgaag tcatttcctc caaagagant ttgangatgc cccaagaaga atctttaagg 720
 ctaanggtca ctaattcctt aaagcctaaa gggcaacc 758

<210> 4319

<211> 701

<212> DNA

<213> Homo sapiens

<400> 4319

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gatccttgtc ctttctctca aactccctga agaagctcgt cccctttcag ctccctgggt   60
cgaagagtga gcacaaagaa cccaaagata aaaagataaa catactgatt cctttgtctg  120
ggcgtttcga catgtttgtg agatttatgg gaaactttga gaagacgtgt cttatcccca  180
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aacaagttga actgatgaga gattaccgca ttaagtaccc taaagccgac atgcagattt  300
tgcctgtgtc tggagagttt tcaagagccc tggccctgga agtaggatcc tcccagttta  360
acaatgaatc ttgtctcttc ttctgcgacg tcgacctcgt gtttactaca gaattccttc  420
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aagtatgacc caaagattgt ttatagtggg aaagttccca gtgacaacca ttttgccttt  540
actcagaaaa ctgggcttct ggagaaacta tgggtttggg atcacgtgta tttataaagg  600
gagatcttgt ccgaantggg tggctttgat gtttcaatcc anggntgggg ggctggaggg  660
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<210> 4320

<211> 793

<212> DNA

<213> Homo sapiens

<400> 4320

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caaagcttcc tacaggaaaa taaacactca catcctaaag gttccagaaa cagatgaggt  120
agagctcacc tgccaggcta caggttatcc tctggcagaa gtatcctggc caaacgtcag  180
cgttctgcc aacaccagcc actccaggac ccctgaaggc ctctaccagg tcaccagtgt  240

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tctgcgccta aagccacccc ctggcagaaa cttcagctgt gtgttctgga atactcacgc 300
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aacttggctg cttcacattt tcatcccctc ctgcatcatt gctttcattt tcatagccac 420
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aagacctgtc accacaacaa agaggggaagt gaacagtgtt atctgaacct gtggtcttgg 540
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tggcctgcaa agcttgccat ttgcactttt caaatgcctt tggntgaccc agcacttaaa 660
tctgaaacct gcaacaagga ctagccaaca cctggccatg aaacttgccc cttcactgat 720
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<210> 4321

<211> 747

<212> DNA

<213> Homo sapiens

<400> 4321

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ggttcattga ttatatagag agaaagacta agaaaagcta ttaattgcta ccaattttat 480
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gttgaaagaa aacatgaaat cctaattgta gttcatttta tgttcaaatg aaaccattgg 600
ttttggtttt gntttgaaac agagtctcac tctgttgccc aaagggtggag agaagtggna 660
cgcttttgtc ctactggna aacctccaac tccccgaggt tcaaagtga ntcncngng 720

cctcaaacct ccccaaaatt tataagg

747

<210> 4322

<211> 194

<212> DNA

<213> Homo sapiens

<400> 4322

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cctcctggaa tgaccttaaa tgagaagagt gttcaaaatt caattacaca gtggattgta 120
gacatggaaa ggtgatcagg taccttatat gaaggggaaa aatttcaact tccaattaaa 180
tttannantc cata 194

<210> 4323

<211> 883

<212> DNA

<213> Homo sapiens

<400> 4323

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ccgcagcaat gccatgccac atattaagac atatatgagg ctttctccag acttcagtaa 180
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aaatctttcc aaaggtcact cttatgaatg gatgttggtt atacttttaa tggacattaa 660
 cattcctaataa aaagtattaa gtccctaatt cacttttata tgttttggaa agaaaattag 720
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<210> 4324

<211> 792

<212> DNA

<213> Homo sapiens

<400> 4324

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 gaatatgtaa gagcttttaa tgctaccaa ctggaacgag tatttgcaaa accattcctt 180
 gcttcgctgg atggtcaccg tgatggagtc aattgcttgg caaagcatcc agagaagctg 240
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 aatatagtac tgtacgatat gaggcaagct accctttgaa aaaagggtat cttagatatg 720
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 gaagnattat aa 792

<210> 4325

<211> 787

<212> DNA

<213> Homo sapiens

<400> 4325

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ataactcaat gacctgaaat aataggtgct caatgctttt tcatttgatt ccttaaaaaa 720
caatttttat tccggtncaa aaaaaaaatt cccccnggcn aaaaatccca aaatggattt 780
acctggg 787

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<210> 4326

<211> 843

<212> DNA

<213> Homo sapiens

<400> 4326

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cccagctctg cgagagccag gggaaaagga agagaggcag ggaaggaaag gcagcaagta 180
caaggtgatg aatgactgca ctggccattg cttcatgaag agccacgaaa aaacagagcc 240

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ggttttctcag caggtagctg gctgctcagt cacaaaggac ctctttggac aggctttatg 300
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 ctcactttgt cttctttctt ctgctggta aaatttgctg gctcgggcag ttaacgccct 420
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<210> 4327

<211> 784

<212> DNA

<213> Homo sapiens

<400> 4327

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ataagtccaa tgatgcaagg atttggacct tggnaacttca agttttattct ccgcagatac 720
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nnaa 784

<210> 4328

<211> 823

<212> DNA

<213> Homo sapiens

● <400> 4328

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<210> 4329

<211> 336

<212> DNA

<213> Homo sapiens

<400> 4329

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gtttcttgca gcgggggctg ctgcctaaac agactccgcg ggcccatga tggcaaacc	180
cctcgccccg ttcattgactt aatgcctcct agaagaaaag gctaaaaaca agacacacag	240
aacaagaaat tgcactctct caaaacgaca gtcnccctga aacggacgct ggaagaggtt	300
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<210> 4330

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4330

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ctctacaca gtgtggaagt ggaagtcagt tactttgcag ctggaattat tgccattta	480
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<210> 4331

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4331

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agntgc 666

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<210> 4332

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4332

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atgcacaaaa gcagcctgtt aaaaatcagc ttggattaaa cccgcagtca catctaccag 180
aactgcagct atttcaagct gaagggaata tatataaata tgatcacatg gaaaaatctg 240

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<210> 4333

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4333

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<210> 4334

<211> 794

<212> DNA

<213> Homo sapiens

<400> 4334

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acntttgatc ataa 794

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<210> 4335

<211> 743

<212> DNA

<213> Homo sapiens

<400> 4335

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<210> 4336

<211> 792

<212> DNA

<213> Homo sapiens

<400> 4336

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<210> 4337

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4337

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<210> 4338

<211> 575

<212> DNA

<213> Homo sapiens

<400> 4338

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<210> 4339

<211> 797

<212> DNA

<213> Homo sapiens

<400> 4339

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gatggtgact ggtctgcttg cntanatcat gaattacatc attgggaana ataaaaaaca 660
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<210> 4340

<211> 642

<212> DNA

<213> Homo sapiens

<400> 4340

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<210> 4341

<211> 740

<212> DNA

<213> Homo sapiens

<400> 4341

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<210> 4342

<211> 779

<212> DNA

<213> Homo sapiens

<400> 4342

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 attcactttg ccctgggcta atcctntaaa aaagatgtgt gttcctaata cttcaaaanc 720
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<210> 4343

<211> 830

<212> DNA

<213> Homo sapiens

<400> 4343

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<210> 4344

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4344

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caggtactct gtacaactct ttttaactcc acttaagaaa tcataattat taaggcagaa 660
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ttaattangt cagacatatt aaaggaatat tgcctggcct ccccnanttt ccccaaaaag 780
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<210> 4345

<211> 788

<212> DNA

<213> Homo sapiens

<400> 4345

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gtattccgcc acgtccggta tgagaacctg atagcgggcg tgagcggcgg cgtcttatcc 240
aaccttgcgc tgcacccgct cgacctcgtg aagatccgct tcgccgtgag tgatggattg 300

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<210> 4346

<211> 845

<212> DNA

<213> Homo sapiens

<400> 4346

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 ctttaaagtc aaatataatt actcatcttt ataatacaat agtattaact gcccatatgc 660
 tcatagtatg atgagccctg tatagcaciaa ggtcaacagg tcctctcctt gtccttanaa 720
 tctaaagcag atgacactga catggacaaa acaagtgcac atgcatagtt gcggnagttt 780

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aatta 845

<210> 4347

<211> 853

<212> DNA

<213> Homo sapiens

<400> 4347

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gtgcacagtt ggtttttaaa gccttgagag tggataagct gacaccaaag gactgagtac 180
aaagggtaaa aagaaagggt ccaaggacta agccctgaga cctaccagca tttaggggggt 240
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gcaataggga gtgagtata acttcacaca tatctagcta acccacagct acctgatgg 420
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gaggaaatga gttggatact accagtatgg aaggtctttg aacagggttt gccctacaag 540
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cagtgatgtt acagaatatt tgtgtaagac aagccaatag agaggagaag atgacgatgc 660
aagagaatcc attgcaggag caatgttcnt gagtcagtga tangggatgg nacataatgg 720
acaagttgga gtggtgtgat cataaatcac tttgatgtaa agaccatctc atcaagaact 780
ccaacagctt tccccactg gctcctttc ataacaccaa aggnccancc tttgggggtcc 840
naacaaangc cta 853

<210> 4348

<211> 694

<212> DNA

<213> Homo sapiens

<400> 4348

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caatcagctt caaacctgg gccacctttg ctgcagtgat naaattgaag ggttgaaggg 600
tgcaaacaaan ggnaacaagc aagggaaca atcctggctg gggaagaatt ctccaaagaa 660
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<210> 4349

<211> 787

<212> DNA

<213> Homo sapiens

<400> 4349

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gcacagaaat gtccttgtgt taggcaatac cattcaggac atagccatgg gaagagtcct 420
catcactaag aacaccaaaa gcaatggcta caaaaaccaa aatttacaaa tgggatctaa 480

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ctaaacttaa gagtatctgc agcgcaaaaag aaactattat cagagtgaac aggcaaccca 540
 cagaatggga gaacattgtt gcaatctatc catctgacaa agggctaata tgcagaatct 600
 acaaagaaca aatttacaag aaaaaaaaaac catcaaaaag tgagcaaagg gtatgaacag 660
 acacttacca aagaaagaca ttatatacagc caacgaacat gtgaagcaaa gcacatcatc 720
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<210> 4350

<211> 632

<212> DNA

<213> Homo sapiens

<400> 4350

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 agtggcgcag tcatggctca ctgcagcaaa acatcgacct tcccagcctc aggcgatcct 180
 ctcatctcag cctcccaagg agccgggact gcaggctccc accaccacac ccaaattttt 240
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 ctccanaaat gccccgggga aattttccct cc 632

<210> 4351

<211> 760

<212> DNA

<213> Homo sapiens

<400> 4351

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atagcagtgcc cccactcctc agtatcaact tcctgtatta gttcattctc acgctgctat 180
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aatcatgtca gaaagtgaag cagaagtagg ccatgtgtta catgcatggc tggagcagga 360
ggaagagagg tagaaggagg gtgctacaca cttttaaaca accagatctc atgataactc 420
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taatcttgta agccggattg gntttcaana cttcaatttt ttcaaggcac ctattgggnc 720
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<210> 4352

<211> 867

<212> DNA

<213> Homo sapiens

<400> 4352

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tcaaggcagt agcatttcat catgacatac caaaatactg acttatattc ttactgggat 180
gtgttcttcc atgggtgtga ctatagcggc atctctaggc agaggcaaaa tatttttcaa 240
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ttctaagggt actgaattct tcacaatagt tgagttgaaa taatatcatg tcctattggg 420

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cctagcagaa ggaattgggt aaaaatatgt tcctccagga attgccctgc tgaactgact 480
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 tatatttgat gatgagcttt tccttctctt actagttaga caacaggatc cattgcttcn 600
 tgaaatattt ctcaggttgt gataataaaa ccatttgaac tanttggaga acagcacata 660
 taccctgttt gcaacagcaa ggnagtatca ctttattcac atttataaag tgtataaata 720
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 gagggatnan ggtgtggatt tcctaatttt ttaggttta atttttgggg gaattttaaa 840
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<210> 4353

<211> 636

<212> DNA

<213> Homo sapiens

<400> 4353

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 taggttttaa tggaaatcga attgttgatg ttaatctaac tagtgaagga aaggtgaaac 420
 tggttccaaa tactaaaatc cagatgtcat attcagtaaa atggaaaaag tcagatgtga 480
 aatttgaaga tcgatttgac aaatatcttg atccgtcctt ttttcaacat cggattcatt 540
 ggtttcaatt tcaactcctt catgatgggtg atcttcttgg ngggcttagt ttcaatgatt 600
 ttaatgagaa cattangaaa gnntatgcnc ggnaca 636

<210> 4354

<211> 762

<212> DNA

<213> Homo sapiens

<400> 4354

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cactggatcc acttatcagt cagctgctca catttcagcc tttcatgcag gtgggttttg 120
acagtaaatt agacctgcca tgtgaactgc agtttcaca atgtcttctt ctggttgttg 180
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gagaatgtta tcaactcatt aacctatcaa tactgttgaa agcgtctctt ttttcttcat 660
gggcaccanc ccatcannct gggagggtta tccaagaaaa ttttcccaa aaaggaaagn 720
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<210> 4355

<211> 770

<212> DNA

<213> Homo sapiens

<400> 4355

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tttcacgtct ttaattctga aacttgaaac aaaaacaatg catcagtggg ccatggagac 180
ttcttcttct gtgtatggga tactgtgtct tttattcttc tattctggta tgtcctccct 240
gatttctagt catttttgaa ttatttatag acagtaaaca ttgcccaata tattatgaaa 300

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atgtgtttcc actttattgt tgcctctgaa aacattttga acagaagctt ttataagcaa 360
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 taaatgggnt ttctaanggg ttttcccgtc aagtattgat ttgttttggg tggantacga 660
 ttttaagggtg cgcctaattg gctccccggt ttcctgaaac tatancaaca atttttgggg 720
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<210> 4356

<211> 767

<212> DNA

<213> Homo sapiens

<400> 4356

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 tctcattttt ctctccaact actctctcat ttgtttctta aactcccttt tttttcagcc 600
 tgttttttgg aaccctgtta gagaagaaca gacatatatt gtcctgaaa ggtacattta 660
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<210> 4357

<211> 691

<212> DNA

<213> Homo sapiens

<400> 4357

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agctgtatat gacaattcca gttgctctgt gtgtcatcac aaacacttag catcagcatt  180
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gacacctgaa ccctaagaca ttttaaaatg acagtattca ttancaagtg taatgtanag  660
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<210> 4358

<211> 726

<212> DNA

<213> Homo sapiens

<400> 4358

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ttttactgaa gctcctaaac tgccatttgc ctgactccag caattaattc tgcggtgact  180
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aatgcgac catgtcacca aatataattg ctacaagtaa catgaaatac agctcaccaa 300
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 ctaacataag gatttccttt aatattccaa atacagttct tgaaacagta tccaacatga 480
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<210> 4359

<211> 821

<212> DNA

<213> Homo sapiens

<400> 4359

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 aggaagtcca catttggtca cagttgcaac ctttggtttt acagtgggaa atggtggtgg 180
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821

<210> 4360

<211> 801

<212> DNA

<213> Homo sapiens

<400> 4360

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ttantttagg aaggcactat t
801

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<210> 4361

<211> 787

<212> DNA

<213> Homo sapiens

<400> 4361

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<210> 4362

<211> 729

<212> DNA

<213> Homo sapiens

<400> 4362

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<210> 4363

<211> 775

<212> DNA

<213> Homo sapiens

<400> 4363

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 cagcactgcc cgcttttagc gtcttcactt cttcacagag ttcagtgcgt ggaatctttc 720
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<210> 4364

<211> 807

<212> DNA

<213> Homo sapiens

<400> 4364

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<210> 4365

<211> 778

<212> DNA

<213> Homo sapiens

<400> 4365

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agtaatggga ttgctgggtc aaatgggtatt tctggttcta gatccttgag gaattgccac   180
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actggcatga gatggtatTT ccttgtggTT ttgatttgca tttctgttat gaccagtgat 360
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 ttcatttcat tcaccactt ttgatggcat tgtttgtttt tttcttgtaa atttgtttaa 480
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<210> 4366

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4366

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<210> 4367

<211> 689

<212> DNA

<213> Homo sapiens

<400> 4367

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gaatgttcct cctctccttt tcttcctgga caacaagatc aaatatttct caagatcttt 600
tacagctgaa ttgggggcac atggacaggt atnatcttaa aatatnanaa antaatttaa 660
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<210> 4368

<211> 738

<212> DNA

<213> Homo sapiens

<400> 4368

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gaaatgttgt catccgtcat accagattcc aggagagaaa atgaacttcc cgatttcccc 180
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cacattgatg agttttttac ccttaactca acaccatcta gatctgcata tgatgagcct 240
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 gaggccgaaa ggctgcaggt agaaaaggaa cgcctacaaa tcgagaaaga gaggctgcgg 360
 catttagaca tggaacatga gcggcttcag ctagagaagg agcggctgca gattgaaaga 420
 gaaaagttga gggtacagat agtcaattca gagaaaccgt ccttgggaaa tgaacttggn 480
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 nctgcanatt gaaaaggga cgcttacagg tanagaaaag acagacttcn aattcagaaa 660
 gaaaggcact tgcaagtgan ttttcaggc ttccatttag caaatgttt ggaaaaacnc 720
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<210> 4369

<211> 728

<212> DNA

<213> Homo sapiens

<400> 4369

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 tttctcctag agcttcaaaa catcattatt caagatcacg atcaaggtca agagaaagaa 180
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tcgagata

728

<210> 4370

<211> 680

<212> DNA

<213> Homo sapiens

<400> 4370

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aacaatacag gttatttcaa gacacgcctc actgaaacct atttgccagc tcaagctaga 540
aacctcaagn acctctgcat aatgttcaag ttttaaatca aatgataaca tcaaggatca 600
tatccangaa cntaacatgg nctgcatttc taaagaanca gggttcaaga ggctttctgg 660
angtgatatc tcagcttggg 680
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<210> 4371

<211> 781

<212> DNA

<213> Homo sapiens

<400> 4371

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gcataatttg tggtagtggg ggactgcgtt cgcgctttcc cctgccgaga gatctgagcc 180
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<210> 4372

<211> 818

<212> DNA

<213> Homo sapiens

<400> 4372

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<210> 4373

<211> 742

<212> DNA

<213> Homo sapiens

<400> 4373

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<210> 4374

<211> 664

<212> DNA

<213> Homo sapiens

<400> 4374

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<210> 4375

<211> 699

<212> DNA

<213> Homo sapiens

<400> 4375

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<210> 4376

<211> 729

<212> DNA

<213> Homo sapiens

<400> 4376

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aatttgctgt ccctaattgg atatgatgtt ggcatctttt tcctatgcat atttgctatc 180
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<210> 4377

<211> 793

<212> DNA

<213> Homo sapiens

<400> 4377

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<210> 4378

<211> 809

<212> DNA

<213> Homo sapiens

<400> 4378

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 ctatganggt aaaggatgct gctgaagcca ccctaacatg cattatgcag ttgctcgggg 720
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<210> 4379

<211> 762

<212> DNA

<213> Homo sapiens

<400> 4379

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 agcttttagaa gtcacctttg ggcatggatg atacacangt gcgaagtgt gctaccgata 660
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<210> 4380

<211> 853

<212> DNA

<213> Homo sapiens

<400> 4380

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<210> 4381

<211> 736

<212> DNA

<213> Homo sapiens

<400> 4381

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<210> 4382

<211> 805

<212> DNA

<213> Homo sapiens

<400> 4382

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 ccctcacata cacaactct gttctgtttc aagataatc caatggagca ccttaccctc 480
 acatgtacaa agagggcaat gggaacttga tagcatatgg tattgtgaga atcactgagg 540
 caagagcaag caactccttc tggttggtaa ttggaaaac ctctcttac attgggcaga 600

aatcattttt aacgcctact ccatatcttt aagcgagaag ctgttatctc ctctgcaggc 660
 tctgtcatac tatnggatgt ggcttcattt ctaaacctag caatcctgac atcctcatca 720
 ctcttgnga gagcacagtc attcactcan ggcaaatccg ggcactgncc aaagggcaaa 780
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<210> 4383

<211> 574

<212> DNA

<213> Homo sapiens

<400> 4383

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 aatctggcca catacgctaa gagtaaactt caattgtatt gcaaacaaat gtattttgcg 180
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 aataactcta tttccaactg aaacactcaa tttcccaggt aaactggtaa ttcccaggag 480
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<210> 4384

<211> 788

<212> DNA

<213> Homo sapiens

<400> 4384

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gccagtgtta ttacgttccc atccgattca cctcagaact catcgcagct gcaaaggaaa 180
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gaatgttgtg aaattgaagt aaaaaagcc taagagaana acgatntgaa aaaaccaatg 720
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<210> 4385

<211> 709

<212> DNA

<213> Homo sapiens

<400> 4385

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caggagtat acggccttgg gaaagtcact taactgctct gaaccttaac tttcntatct 480
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ctgcatagt tccagcacag anggcaccac agagggtca acaaccacat ggggccctct 600
gaaaggactt attcattann aagatgncca ctctgcactt tgggaaggcc gaggcgggtg 660
ggcagatcac ctgangncag gaggttccaga caagcttggg caacgtggg 709

<210> 4386

<211> 788

<212> DNA

<213> Homo sapiens

<400> 4386

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tacctcccca attagtttgg catctcctaa agaaattgat catatttaca cacagaaatt 120
aattgacgcc atgaaacat ttggagtgtt tgaagatgag gaagaattga accacaggct 180
ggtggttctt ggtaaattga acaatttagt aaaagaatgg atttctgatg tcagcgagag 240
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aggattcctt ggnggggncc cctgggcaat gctaagtcca annaacttgc caattgtatc 780
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<210> 4387

<211> 850

<212> DNA

<213> Homo sapiens

<400> 4387

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<210> 4388

<211> 863

<212> DNA

<213> Homo sapiens

<400> 4388

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aaggtctgtc aggatatgaa gcaacctctg tctcattact ttataaactc atctcataat 180
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<210> 4389

<211> 638

<212> DNA

<213> Homo sapiens

<400> 4389

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<210> 4390

<211> 848

<212> DNA

<213> Homo sapiens

<400> 4390

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<210> 4391

<211> 786

<212> DNA

<213> Homo sapiens

<400> 4391

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<210> 4392

<211> 694

<212> DNA

<213> Homo sapiens

<400> 4392

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<210> 4393

<211> 816

<212> DNA

<213> Homo sapiens

<400> 4393

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<210> 4394

<211> 845

<212> DNA

<213> Homo sapiens

<400> 4394

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cctacaaaga	atgtngatga	tctaaaacca	aaactcaacg	gtgaaaaacc	aagttaatac	720
ccaagggaca	tggttagaaa	agttttantta	caccagggtg	aagtggntac	ccaatttggg	780
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<210> 4395

<211> 665

<212> DNA

<213> Homo sapiens

<400> 4395

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tatgaagcag ttttggcttt ttcaacagat gttggccact cacttttatg gatttcacat 360
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 ngcaa 665

<210> 4396

<211> 735

<212> DNA

<213> Homo sapiens

<400> 4396

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 gcggcgctgg cggcggccct gggacccgcg gaagccggca tgctggagaa gctggagttc 180
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 agatactata aatcacctat ggtacagatt tatgaattag aggaacataa aattgaaaca 480
 tggagggagc tttatttaca agaaacattt aagccttttag tgaatatatc tccagatgca 540
 agcctcttcg atgctgtata ctcttgatc aaaaataaaa tccacagatt gcccgttatt 600
 gaccctatca gtgggaatgc actttatata cttaccaca angagaatcc tcaagttcct 660
 ccaagctttt tangtccgga tatgccaaaa gcctgccttc atgaaagcaa gaacctggat 720
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<210> 4397

<211> 701

<212> DNA

<213> Homo sapiens

<400> 4397

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ctgaaaggct cccggagctc cgagctgcta ggtcaggcag ctcgaaacat ggtactccag 180
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aacccaagga nggtgggang gttnccaatt gnaggccaaa g 701
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<210> 4398

<211> 720

<212> DNA

<213> Homo sapiens

<400> 4398

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ttgagcagct caaaatggca gtcaccaacc taaagagaca ggctaacaag aagagtgagg 180
gcagcctggc ctatgtgaaa ggcggtctca gtacattctt cgaagcacag gatgccctct 240
cagccatcca tcaaaaacta gaagcagatg gaacggaaaa agtagaagga tccatgacgc 300
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 ttaagtttct tttcaacctt cctctaaata ttgaaaggaa tattcaaaag ggtgattatg 480
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 ttttcaagaa atattatgct gaagtanaaa caaggattga agctttaaga gaattacttc 600
 tggataaatt gcttgagaca cccatcaact tttacatgac caaaaaacgt tacataaggg 660
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<210> 4399

<211> 802

<212> DNA

<213> Homo sapiens

<400> 4399

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 gatttgcata cttagagatt aagcccatgt tcattaatta tttagttaat tcaaaagcca 180
 ttaataaaatc catgcccagc ctacgcaaca tagtaagacc cagtctctac aaaaatttta 240
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 agaggattgc ttgagcccag gaggtcgagg ctgcagtga ccgatgattgt gtcactgcac 360
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 actagatact ggaggtctga aggagaagct ttaaaaatac agattgattg cttcagagaa 480
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 ccagagattt gggcatctca nggatccatg aaatgctgag actaanccac taaatccaaa 720
 ttttattggc tanggnaaat ccnaaatccg gtcagtgttc cggacaagat tttaggagtt 780
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<210> 4400

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4400

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<210> 4401

<211> 687

<212> DNA

<213> Homo sapiens

<400> 4401

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gcggtctctg tctcggctgt gagctgcgct ctccacgccg gctccgcgct ccaggggctg 180
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 aaataagatg catgctattc ctttgaggtc ctctgggtg atgacctgtg cttatgctcc 600
 ctctggtaa ntatgttgcc tgtggaaggc ttggcaacat ctgctctata tataacttaa 660
 aggaccaana gagggaaaat gntnana 687

<210> 4402

<211> 741

<212> DNA

<213> Homo sapiens

<400> 4402

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 aaaccatta aactgttggc taactgtttt caagttgaaa tcccaaagat tgatgtctac 420
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 gactcaatgg ttcaacattt taaagtaact atatttggag accgtaagac caatttatga 540
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 tagacgttac ttacctggg gaangtggga aaaggattga ctttcaagg gtgtcaatca 660
 aatttgtctc ccgggttaag ttgggaacct actgcaanaa ntactganaa ggacggacct 720
 tgcctgancc aatngaatt t 741

<210> 4403

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4403

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tcaaaaaaaaa agaagcctct cactttcagt ccaagctaata tacacctcct cctccaccac 180
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cactagcacc tgtgttgctc agaaaaccca ntctcgctaa agcaacttca agctggacca 720
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<210> 4404

<211> 617

<212> DNA

<213> Homo sapiens

<400> 4404

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tcaccaaagt taccgcacaa tgggtccaca ggttcaccc cactgctgag gaattctcac 60
tccaactctc taatttccga atgcatggat agtgaagctg agaccgtcat gcagctccga 120
aatgagttaa gagacaagga gatgaagctg acggatatcc gcttagaagc tctcagttct 180

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gcccaccagc tggaccagct ccgggaggcc atgaacagga tgcagagtga aatagagaag 240
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 attcatgtcg aaccaat 617

<210> 4405

<211> 823

<212> DNA

<213> Homo sapiens

<400> 4405

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 aagctactga atcccagata caacttgcca ttagacattc agaatagaat cttgaatttc 480
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 tgggaaaact gcacantgaa nttggattgg tgaaaatgna atgtgcgnag tgatgtccgc 780
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<210> 4406

<211> 784

<212> DNA

<213> Homo sapiens

<400> 4406

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atgg 784

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<210> 4407

<211> 728

<212> DNA

<213> Homo sapiens

<400> 4407

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<210> 4408

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4408

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<210> 4409

<211> 830

<212> DNA

<213> Homo sapiens

<400> 4409

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caggagactt ccataagttt gtgtattatg ttagtctatg aaaacgtgca aatgtattgt 720
agagactttt atgattagaa ntgcatanat ttatgaaact taaagatgaa tggttttaat 780
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<210> 4410

<211> 808

<212> DNA

<213> Homo sapiens

<400> 4410

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gaatgtgcta gaagcactct cagaaaagaa gtctgccagg ggaggactag ggtccaaaga 180
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<210> 4411

<211> 841

<212> DNA

<213> Homo sapiens

<400> 4411

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<211> 852

<212> DNA

<213> Homo sapiens

<400> 4412

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<210> 4413

<211> 799

<212> DNA

<213> Homo sapiens

<400> 4413

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<210> 4414

<211> 868

<212> DNA

<213> Homo sapiens

<400> 4414

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<210> 4415

<211> 891

<212> DNA

<213> Homo sapiens

<400> 4415

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<210> 4416

<211> 849

<212> DNA

<213> Homo sapiens

<400> 4416

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<210> 4417

<211> 859

<212> DNA

<213> Homo sapiens

<400> 4417

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<210> 4418

<211> 925

<212> DNA

<213> Homo sapiens

<400> 4418

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<210> 4419

<211> 787

<212> DNA

<213> Homo sapiens

<400> 4419

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<210> 4420

<211> 691

<212> DNA

<213> Homo sapiens

<400> 4420

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<210> 4421

<211> 826

<212> DNA

<213> Homo sapiens

<400> 4421

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<210> 4422

<211> 646

<212> DNA

<213> Homo sapiens

<400> 4422

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<210> 4423

<211> 781

<212> DNA

<213> Homo sapiens

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<210> 4424

<211> 751

<212> DNA

<213> Homo sapiens

<400> 4424

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<210> 4425

<211> 859

<212> DNA

<213> Homo sapiens

<400> 4425

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<210> 4426

<211> 876

<212> DNA

<213> Homo sapiens

<400> 4426

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<211> 850

<212> DNA

<213> Homo sapiens

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850

<210> 4428

<211> 863

<212> DNA

<213> Homo sapiens

<400> 4428

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gctcatgcct gtaatctcaa cactctgaga gactgaggca ggaagatcgc ttgaggccag	180
gagtttgaga ccagcctggg caacatagca agtcctagtc tctacaaaaa taataataag	240
aagaagaaga agaagaataa atccctttta actacaataa gcagagacca gttattcatt	300
ggctatatatt ttaagattgc cagcttttca aatgcagcaa aataaatgaa aaaagaactt	360
tcaacaggga tctagaagtc agttttcccg ttgagtagat cttccagccc aatacat	420
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gaaacaattt taaaatgacc acatattatt taattttaaa agcacacttt taagaacccc	540
atttcttatg aaaggtttca tatcgagatc atttgttatt gtgagactgt atctggtgga	600
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gatttatgac ttttttttta catcatccag ctatgggntt gggacgtggt ttgttttaca	720
atttttcttc cccaggaatc ccctanaccg gtttgatcca aangaaagta atttgggcaa	780
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<210> 4429

<211> 842

<212> DNA

<213> Homo sapiens

<400> 4429

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tgaaaactca aaatgggaac ctgttaaagt ggaaaatgat atgcactgtg ctgttaagat	180
ccaagataaa aatcagtggc gaagaggcca gatcatcaga atggttacag acacattggt	240
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acttgaagaa aatctaaaga cgatgggaag actctctttg gaatgttctc tggttgacat	360
aagaccagct ggtgggagtg acaagtggac agcaacagct tgtgactgtc tttcattgta	420
cctgactgga gctgtagcaa ctataatctt acaggtggat agtgaggaaa acaacacaac	480
atggccatta cctgtgaaaa ttttctgcag agatgaaaaa ggagagcgtg ttgatgtttc	540
taaataattg attaaaaagg gtttggcttt gagagaaagg agaattaata acttagataa	600
cagccattca ttatctgaga agtctctgga agtccccctg gaacaggaag attcagtagt	660
tactaactgt attaaaacta actttgaccc tgacaagaaa aactgctgac aataatcagt	720
gaacagaaaag tggctctgaa tticagggag aaaaattcta gaaccaaaga accactagan	780
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<210> 4430

<211> 702

<212> DNA

<213> Homo sapiens

<400> 4430

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ccgctcaaac ctccataatg gtctgcacca gccagatttg cctgccctca aaggcattcc	180
acctttgttc aggctctctt ccatacctga aattgccttc ctctaccaa ttaggaaata	240
tccatccttc aattccaaca tcttttgtga atatttacta ctactaagtt ccagagtaat	300
acctttttta aattattatt tatatttttt ttgagacgg agtttcactc ttgttgccca	360

ggctggaatg caatggcatg atctcggctc accgcgccct ccacctcctg ggttcaagcg 420
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 tacatatattt taacattctc ccagtggttt gcagtttgta gggactcaag taaatatttg 660
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<210> 4431

<211> 841

<212> DNA

<213> Homo sapiens

<400> 4431

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 aatgagtgtg gcaagaccgt tggtcaaaat tcacaccttg taattaaaag gtcaaaattc 180
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 cacgtggcac ccatactag aattcacact ggagagaaac cttacaagtg caatgagtgt 480
 ggcaaaccct ttagtgggca gtcaccactt attcaccatc aagcaatcca tggatatagg 540
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<210> 4432

<211> 833

<212> DNA

<213> Homo sapiens

<400> 4432

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tataattcaa ggaagaccgc tgcctgctga tctgagggcc aaagtttgga agattgctct  180
gaatgttgca ggaaaagggtg attgtttggc atcatgggat ggtatttttag acttgccaga  240
acagaacact attcacaag attgcctgca gtttattgac cagctttcag tgccagagga  300
gaaggcagca gaattacttt tggatattga atctgtaatt accttttatt gtaaatacag  360
taacattaaa tatagcacat cccttagctg gatacatcta ctgaaacat tggatgcatct  420
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cagggtattg tcccagaaag ggagaccatt tcatecccttc aggttgctca tccaatacca  540
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ttgttaaagt caaaaggaag ttattttaac ncaagaagtc aagacagcaa agaagaagtt  780
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<210> 4433

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4433

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aaaatttatc acacaaaaaa tgagttttat agaattgcttc aaaaaaagcc attaaaataa  120

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ccaaaactaa aaccaagagt ttgtaggaaa ataccaatat gcaaacattc caaaaggaga 180
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tggttgctctt ttgagaaagt tccttgctgg gattcttttg ctggaaaatt ctcattgctga 300
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tataatggat caagtaaaga gctgtcaaat aagattaaaa agactcacao ttattggaat 720
gttaaaacaa aaccctaaaa ntgaangaaa accgttaaat aaangctaata taaggtaata 780
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<210> 4434

<211> 232

<212> DNA

<213> Homo sapiens

<400> 4434

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ctgggcgccc agccggacag gtgagcggca gccaggtgag cgcgcccacc tgcgcctctc 120
cgcgcggccc gccctccccg gcgcccgggt cctctccgag cccctgtcgg cgcggaaccc 180
tggcctcgtc cgcggcnan ctccctggag cctcncatca gcgggggcgc cc 232

<210> 4435

<211> 699

<212> DNA

<213> Homo sapiens

<400> 4435

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tacgggtgtg tgctgtggac ttgtacttca cactttttgg cctcagtaga ccttcctgtt	180
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accacagct agttggattt canaaccctt tttccagttc tcaagatgag gaggagattg	360
atatggatac tgttcatgat agccaggcct tcatttccca tcatttaaac atgcttgaaa	420
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ttgcacggaa gggaacaggt aaagaacaag cacctttggg agatgagtat gcatccagcg	600
ggnangcgct ccactcccaa gtctttacta anggaatcta cagtctccaa acacagtgc	660
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<210> 4436

<211> 851

<212> DNA

<213> Homo sapiens

<400> 4436

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gatatatattt ttgcccatta cttttagtgg caaaaaccag aattactttt gcaccaacct	180
aatatagcta tatctacatc atctctatct ctatttatat agagatagag aaagagtaaa	240
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acaagaagag gaagagacac cagagcattc tctaccctc cgtgtgcatg caccaaaaat	540

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 tcaaactaaa gacaacccta ataatggagc acagctatgc ccaatatacct gggnttccag 780
 atgccantcc nactaaaag aacccaaaag ttccttgaag naaatgggct ggatttcang 840
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<210> 4437

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4437

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 ggagctccgg gtgccaaata aagattagga ctaacacacc ttcagtgttt gagtgatgtg 180
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 tattaaatat gacccttata caaattaaac aatgggttacc gcatttgccc ctnaactcca 660
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<210> 4438

<211> 838

<212> DNA

<213> Homo sapiens

<400> 4438

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cgacttactg aactatgtga agaagttaag aaaatagaga atcctgatga actggcagaa 180
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gacctagtat ggggnaattt atgcaaggta attccnaagg taantttaat ggnatngc 838
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<210> 4439

<211> 737

<212> DNA

<213> Homo sapiens

<400> 4439

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gaagggcgac tactacgagg cgcaccagat gtaccggacc ctgttcttca ggtacatgtc 180
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<210> 4440

<211> 824

<212> DNA

<213> Homo sapiens

<400> 4440

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<210> 4441

<211> 720

<212> DNA

<213> Homo sapiens

<400> 4441

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tcacgagtac taccttgga atatgttggc caagaaacct tctaattgaa aaagaacgan 660
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<210> 4442

<211> 886

<212> DNA

<213> Homo sapiens

<400> 4442

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gcggctccac ggagctggtg gaagactcgc actattcgca gagccagctg gtgtgctccg 180

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actgcggctg cgtggtcacc gaggggggtcc ttaccactac cttcagcgac gagggcaatc 240
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<210> 4443

<211> 825

<212> DNA

<213> Homo sapiens

<400> 4443

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<210> 4444

<211> 741

<212> DNA

<213> Homo sapiens

<400> 4444

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 tgagatttga cctttgtagg ctggtggcgg ctgtgcaatc tctagctcca cccactccct 480
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 cccattccc ttgggcaagt tgagagtgtt ggttcctggc cttgacctca naaactcatn 660
 aacacaggat tgggcaataa aactaacttt tatccaaaaa ggcaagaact ttncaaaaca 720
 aaagtccgta tcngcngtgt c 741

<210> 4445

<211> 878

<212> DNA

<213> Homo sapiens

<400> 4445

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tgctgcggaa	actttcaaag	aaagatgtca	ccacaaaatt	aaaagctatg	caggaatttg	360
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ggatgaaatt	acaagtgtgc	tgcangatna	tcttataaaa	aggaaaacac	ctgatacact	720
caagtggacc	ccgcaaaact	gttccanaag	gaaagaaagg	agaaagctaa	aatttctacc	780
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<210> 4446

<211> 781

<212> DNA

<213> Homo sapiens

<400> 4446

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 cctcagtgat tctcggtaac aacggcttca tctgggattt acccaanacc tgagcacana 660
 gaagaggaac aggggggctt cattgcaaac ctggngcctg tcccctcctt gcctgattca 720
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<210> 4447

<211> 633

<212> DNA

<213> Homo sapiens

<400> 4447

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 gaccagagct tcctgtggaa cgttttccag agggtcgata aagacaggag tggagtgata 180
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 gagttcacgg gtgtgtggaa gtacatcacg gactggcaga acgtcttccg cacgtacgac 360
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 gattgccttc gacgacttca tccanggctg catcgtcctg caaaaggttg acggatatat 540
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 ccatgtcct cantatenta tgaacctggg act 633

<210> 4448

<211> 764

<212> DNA

<213> Homo sapiens

<400> 4448

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taattcagct aggactgaca tttatgaatg agcaaggaga ataccctcca ggaacttcaa  180
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ataatcctac attagtttta ctttcaaaaa ttttgtgtgc aatttgaaat atancctttt  540
ataatattta tccttcttgt gaagattttt gttgcattca tattccagtt tatgagtaga  600
ttacatgtca aatgcagtaa gacgttttct ggaaccttgg gtacgttttc ctttcaagtc  660
agtattanca ttaggttgcc acttcagccc acaaaaagct ccccttaatt tacatatagg  720
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<210> 4449

<211> 722

<212> DNA

<213> Homo sapiens

<400> 4449

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ctgcaccccc agtgtatcag cacttcttaa attaaaataa tcttgccaac taatgtcttg  180
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ggctccccctt ttaccccata cctctctccc ccaaaaaagc ttggacagca accaaattgg 300
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 ggtaattgt ggacataatc aagttcattg cttttactcc ccatctgcta ccactcttgt 420
 gcagctatit atggtgatgg ctttggttacg tatatacaca tagaccattg ttaatccct 480
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 ctttgggagg ccgaggcggg tggatcacga ggtccagaga ttgagaccat cctggccaac 600
 atggtgaaac cccgtctaca ctgaaaaata caaaaattag ctgggcaatt ggtggctccg 660
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 ca 722

<210> 4450

<211> 726

<212> DNA

<213> Homo sapiens

<400> 4450

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 acttccttag cctcctcata cctcactctc ctctctgtg gaatggacat ggagaaggct 180
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 cccagcctat ggtgagctct tgttacctgc ctggtgcagg ctctagaaat tcagaaagga 300
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 agatggggga aggcgactct gtcctgtagg tgggggaact gcgtgagcaa aggcacagag 420
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 gancangacc acagggacct tgaccgcaa gctgggggaa ngaantgtga ataaagcccc 600
 aatgccacca aggcattctt gtactgcctt cctctccctc cccaatcnaa gccaaggcaa 660
 cctngccccct tgttttctg gggaancccc tgaanggagg gacatccctt tagcgtccan 720
 aaaatg 726

<210> 4451

<211> 833

<212> DNA

<213> Homo sapiens

<400> 4451

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ctattccaaa tgtctttggt gactgtgtga ttttaacca aattggttta tctatctagg  180
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ataggtaaaa gggctttgcc acttcccaca tcaagggcag gattctttgt gtatttatac  540
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atgggcaaga tggntgcaa ggctgaagtt cttgttacga ccaaaaaaaaa ttatgaaggg  720
gatgccaatc ctaatggatg ggagantttc ctaaggattc caaaaatggn aacaagtncc  780
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<210> 4452

<211> 798

<212> DNA

<213> Homo sapiens

<400> 4452

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<210> 4453

<211> 719

<212> DNA

<213> Homo sapiens

<400> 4453

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 aaagatctcg atagcttgga gggacaaagg tgatgtttgn ntcttaaaag atgctcaatc 660
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<210> 4454

<211> 758

<212> DNA

<213> Homo sapiens

<400> 4454

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 aaccagcact gaacccatgg accctctgac tcccagtgcg gctgccctgg cagtgcagcc 240
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<210> 4455

<211> 720

<212> DNA

<213> Homo sapiens

<400> 4455

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<210> 4456

<211> 712

<212> DNA

<213> Homo sapiens

<400> 4456

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<210> 4457

<211> 769

<212> DNA

<213> Homo sapiens

<400> 4457

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<210> 4458

<211> 860

<212> DNA

<213> Homo sapiens

<400> 4458

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<210> 4459

<211> 763

<212> DNA

<213> Homo sapiens

<400> 4459

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aaactacatt gaaatgcatg gactgtatac agaaggtatt tatcgaaagt ctggttcgac 360
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taataaaatc aaggagcttc ggcagggctc agatacagat gctgagagtg taaatctaga 420
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 gaatgtctgc taatgctttg ggccattggn gtttgcgcc tgcantcccc gctggcctga 720
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<210> 4460

<211> 808

<212> DNA

<213> Homo sapiens

<400> 4460

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 ccactgaca tagaacagt agactctcag aataatgtca ttaattatac cgtccattg 240
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 caagctttta atgcttcttc tttatataac actggggatt caatcccagt cggncgcca 660
 anattgcttg gcatggagca agcttttagcc cgcctcttcc tcagtggcat tatctaaggg 720
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<210> 4461

<211> 762

<212> DNA

<213> Homo sapiens

<400> 4461

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tgaacggatt cagctctcag gaatgtataa tgtccgtaaa ggcaagatgc agttgccagt  180
gaaccgatgg acaagacgcc aagtcacct atgtgggacc tgcctgatag tatcatctgt  240
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gagtcctaac cttttccaat aatcatttag gggacttccc tctggcantc tgcagtattc  660
caaccctggn aaaagctgaa cgtgtcctgc aatngccctg cgatcaatcc ccgggaancc  720
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<210> 4462

<211> 676

<212> DNA

<213> Homo sapiens

<400> 4462

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ctgtggcatc ccattgttca tatttgccaa gtcttctgta aagatgtcta ggacgaaata  180

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ttttatgtgc taatgcatgt atttgtaaac cagatttggt taccactcaa aattaacttg 240
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 taatgtttta aatttattta tgtagatcac atcattttta acgtatgcag tgcaaataatg 600
 tgaaaagtct tttggtttan tcccannant tatttanttt aagaaaagta agtttaaaag 660
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<210> 4463

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4463

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 ttgttggatg agttaatggg ccgggaccga aacctagccc cggacgagaa gcgcagcaac 180
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 aaagaaagag agaagaactg ctaaggtcca caacgtcgac aattgaaaag ctttgctgca 660
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<210> 4464

<211> 742

<212> DNA

<213> Homo sapiens

<400> 4464

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ttttgttttc agaaagtgat tactattaat ataaaccaag atttacttgt aaaaagcagt 180
gttctcaggg tttatattat ggaacagtag cttcaaatat tttgtcttat gacagtaatt 240
cacttccttt ctttttcaca gagtaagttc ctctcagttt atacagagtg attttactta 300
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gtgaatatat tttgtaataa acaaatcaag cttataagat tacaggtctt cagaataaga 480
ccatagatac attggtaaaa gattaataat ttctctaaac taggctattg agaaaattaa 540
tanacataaa agacaaaagc attcagctct tcgaagtata ttaagctgat tagaaaaatc 600
tgaaataggt ggcgccaaga tggccgaata ggaacaagct ccagtctgca nctccanca 660
atgaacgatg cagaaagatg gggcgaattc tgcatttcca anctgangga ccaagttcaa 720
cctcaccngg ggggcttggc aa 742

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<210> 4465

<211> 797

<212> DNA

<213> Homo sapiens

<400> 4465

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gtatttgaac gagcaagaag gatgaatcgg acagattcag aaatatatga agatgcagta 180

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gaacttcagc agttttttat taaaattcgt gatgaactct gcaaaaatgg agagattctt 240
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ctggctacac gaaaatttct agaaaaagaa gtttttaaag agtgactatt acaacaaagn 660
tccagttaag aaaattctag gcaagtgtgt gggcatgttt ggcaaaggaa tacnttaagt 720
tatgcccana anacttccgg agatgaggga ggttttggcc cggngaaatc caccgggaat 780
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<210> 4466

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4466

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tagtgcaatt tataggtgcc ataatcccta tggactgagt cagaaatggc ctaatagaag 180
gcagaagaga ggccagttcc aagcaggggc atagaacaga acaatctgca agggagttgg 240
gagcatatac cgctgggtta agacagttag tgagaaaagg ctggaaggca gacagtgtctg 300
ggcaaaggag ctggagcttg atcattgctg catacgaata tggaggcatt taaactggga 360
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aatagtaaat ttttaataagc ccatgaactt gattatggct acctttattt taaacaagga 480
gaccttaatg gacagaatca agaaacagct acgtgaatgg gatgaaaatc taaaagatga 540
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tcctgtctata aaaaaatagc tttttcaagg gatgccgatt caatcatatc ctccaagggt 660

taagaccgga ttaaaacatt ttinantcctg aaaaagcata anttcccttt gagcaagttn 720
gaaaaaaaaat gangtaattt taaaaattta aattgccaat aaaaatcccc caaa 774

<210> 4467

<211> 809

<212> DNA

<213> Homo sapiens

<400> 4467

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caggtagagc accagcttcc ctgaccgctg ctgctcgggg agggctgggg ctggccgggg 480
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atttttctgc acacggagtn ttngggaata agaaccggg ccaaacgctg ggccctcaac 720
ggtgnagccc tgcccaatcc ttaacgggca aaggtgggnt gggtcctggg aaagaagntc 780
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<210> 4468

<211> 840

<212> DNA

<213> Homo sapiens

<400> 4468

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cagcttctca actgtcctcc aaacgcatac ccctgggntc ctttttcctt aatnaagggg 780
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<210> 4469

<211> 797

<212> DNA

<213> Homo sapiens

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cctctagtag aaagatagca tatgcttggt ttgcttggtt gggttcatca tactctattg 360
cttgggcaga agagcacata tgaagagaag agaaatggga aatggggaag acaacgcaga 420

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gcaccatatac ttgggggtgta tatagaagct acaggacaag tgtaattttt atcattgcat 480
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 tgaaatatgt tttgatcctt tggngaaacc tattttttca tttaaacctg gtccttaaatt 720
 cccagttatg ttcccagaac aatacaanaa atgtttaaaa tgttccaatt tgtaagaagg 780
 anancaangt natttta 797

<210> 4470

<211> 679

<212> DNA

<213> Homo sapiens

<400> 4470

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 catgtccaca attgcagctt tctatggcgg caagtccatt ctcatacagg gggccacagg 180
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 gaagcacatc gatgaagttt atctatccgt gncctgtggg agccanaaaa nntcattgat 660
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<210> 4471

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4471

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gttacattaa tacacagctt tttatgggat acagtaatgt aatatattag cctaattgtgt 120
taggactcct taaacaaggg atactgtaat cattaataga gttgatccat taggcttggc 180
acagtgttta ttttatggaa acactctaaa agaaaaacag acctgaagtt catcatgtgt 240
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gaactagacc cagattataa gtcactccag aggtcccatt tttctggatt tgagggaaga 600
agtgtttgat gacaagtatt tgnagtgant ttatatccat tttcttttaa aaagtaatag 660
nttggaatt agntacntgt tta 683

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<210> 4472

<211> 751

<212> DNA

<213> Homo sapiens

<400> 4472

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aatatttgaa gagttctcct tgttcttcag ccagttgtct caagtgccaa ttctacctct 180
caagtgtgta tctaattgtt tccttccttg ctactgctac tacttttagcc attgccactc 240
cccatgagat tactgcattg atatgatggg gctctcctgg ttactaatct taaactcctt 300
cagtcaactt cccactact ctctgagtag aaagtctaaa atacagataa tcatgacctc 360

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ccaccatcca ccaccctgaa agtcatttta tgtctcctta tattattgaa cacaatgtct 420
 caattcaacg tcgtanacaa agccatccat aatttgaaca gcatcctttc tctccattct 480
 cccacattta gggtangtcc tggcccacgc taccctttca taagtctacc aacactccac 540
 atcctttcac atcccanag tttgggatgt gctattttaa tttgtcctcc ccaancattt 600
 gtacttcctg gcaaacacac atactttctt ctccaggata actcatattc aattcttgaa 660
 gacttgattc aagttttttc cccccggggg ncttccaaa aaccttcttc cccgggcca 720
 attttgggaa antggnngtt ccccccaaaa n 751

<210> 4473

<211> 516

<212> DNA

<213> Homo sapiens

<400> 4473

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 agaagaaagg cggaggcgat ncttccagga ttacactggg caaaaagatt acccttgagg 480
 ctntcttgaa cactanctgc aanaaagtgt ggntgt 516

<210> 4474

<211> 820

<212> DNA

<213> Homo sapiens

<400> 4474

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aaggtctaca tgattacctg aagtttaata ataatgcaag aagtgtttgt gggaagcaga	180
gaagcaagca actgtatttc ttgttctcac ctaagcatta ctggaggata agccacatca	240
gtctacaaag aggttttcat acaaacataa taagatgtaa atggaccaa agtgaagcac	300
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aaagtacttt gaactctgtt tcaaaggctg tttttggcaa tcaaatgaa atgatttcac	480
gttttagctca atttaagcca agttcccaa ttttaagaaa agtatcgga agtggctggt	540
taaaacagaa aaacatcana caagccatca aatctctgaa aaaatatagt gacaaatcag	600
cagaaaagag tccttttcca gaagagaaaa gtcacattat anacanagaa naagatatag	660
gtaaacgcag tccttttcaa tacacaagtt ctataaccac aaaatttggg gactcaatct	720
actttttatc aaaatcatat taattcacat ttcaaaacgt aaggggaaaa atgtctcaac	780
aaaaagggga aatggnncat ttccngggc aatcaanan	820

<210> 4475

<211> 679

<212> DNA

<213> Homo sapiens

<400> 4475

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aactaaggaa tgtaaagtga tttttccac atttcaaata ttccatggac acctatgttt	180
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 ataaaattac ngtggttgga ggggtgganaa actccggtat tgcctgcaca tttagcaatt 660
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<210> 4476

<211> 587

<212> DNA

<213> Homo sapiens

<400> 4476

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<210> 4477

<211> 628

<212> DNA

<213> Homo sapiens

<400> 4477

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<210> 4478

<211> 764

<212> DNA

<213> Homo sapiens

<400> 4478

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 agaaagttag accatggttc tgaggtccgc tctttttctt tgggaaagaa accatgcaaa 180
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 ccacctacag gcctccagga atggctaaaa atgtttcaga gctggagtgg accagagaaa 360
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 attgatgaac cattgcacat caagagaaga aaagttataa aaaccagggt tcatacacia 660

gtccatggga aagtgcatac atcangacaa gcacangatt tgntaccaac ctgggaggcg 720
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<210> 4479

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4479

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tgcgcaagta tttgggatna tctttaccat ctcccanggg caaattattn gcaactatgg 660
gancaa 666

<210> 4480

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4480

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 cgttaaaaaa gtatgtatac ctggaacata nattttaaga ttacccaant ttccaaaaat 660
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<210> 4481

<211> 795

<212> DNA

<213> Homo sapiens

<400> 4481

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 cacgagggtc agaagtcgag accagccttg ctaacatggc gaaaccctga ctctactgaa 180
 aatacaaaaa ttagctgggc gtgatggcgt gcgcgcctgt agtcccagct gctcgggagg 240
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aataaaactt gcactcanc tccaagccca cgtgttaate cgattcttta agtgtcacct 720
cccaaattgtg gaaaatgcat tgtctttctt ctttcccnag gccaatggg cctcaaaant 780
tnagncaagg tttaa 795

<210> 4482

<211> 414

<212> DNA

<213> Homo sapiens

<400> 4482

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gagatgggga atttcaagaa ctaatgaaat tggcacttaa tcagggaata attcatcatg 300
aaatgcaagt tttagaaaaa gaagtanaga agagagacag tgatattcag cagctacaaa 360
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<210> 4483

<211> 701

<212> DNA

<213> Homo sapiens

<400> 4483

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acagaagctt atcagtaaca ctatttgatt gctttttgct gtgtgcacag gtgaggacct 180
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caaactgtaa caacagtgcg gggattttgg tatttaaaaa gggcagagta taccaagaat 360
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 taataaagca ctacataaat atgagctcat atcatatatt tgacagtagg gcattatatt 480
 tacagggttaa cattcaatta atctgactat gaattagaaa aatcttgaat ttgttagagtt 540
 catttaactt tattaaagca atttgccaac tcagctacag aaatacagaa aatattacta 600
 tctggagaac taccagtcg taagtttate ntcgttgaaa ttgcctaagc agaggattan 660
 gtggccaatc ctcaaggaat agtatacgaa ggnttccgc a 701

<210> 4484

<211> 854

<212> DNA

<213> Homo sapiens

<400> 4484

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<210> 4485

<211> 749

<212> DNA

<213> Homo sapiens

<400> 4485

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ctccaagatg tgcatagcca aactgggata gaaggcaaac tcccaaagc tacctgctgg 60
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tcaacagact caggtcaggt ctctcaccca ggaagcaacc actcaataaa atagagaaca 480
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gttcatgcta aagacaaact tacatgaagt ttttcagttt aagacattcc agtgaatggc 660
tgctatgtgt ttctggcact canticctaaa ccaagtctta naagatttca gaatgacctt 720
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<210> 4486

<211> 670

<212> DNA

<213> Homo sapiens

<400> 4486

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cggttgtaagt ccgcccagct ccccaacttgc tgtgctctca ctcaatgcga agggaaaccaa 180
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 ctgaaacttc aggagctccg caaagtgtgt ctccaggagg cgggtgagggc ctggnctan 600
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 tttgggtggg 670

<210> 4487

<211> 679

<212> DNA

<213> Homo sapiens

<400> 4487

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 ggccaaccct gaaangctgc aggaaactgc ctccatccaa ggcctcttta aaanaaggga 660
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<210> 4488

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4488

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gaggaagaaa ttgttgagct tccagatttg gattacctgc gaaccatgac tcatatagtc  180
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taacatgggt gccaaaaata cttcaatagg agaagaattt atatccacag aagatgtgga  660
attagaagaa gctattagaa gaagtcctga gggaaatggt aattaaagat nttaccaca  720
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<210> 4489

<211> 764

<212> DNA

<213> Homo sapiens

<400> 4489

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accagccagc gaaattgcaa agctcttggc tagtgatgac atgaacattc ctaatgagga 180
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<210> 4490

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4490

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 ctaagggtgta ctaatttttg cacagtgaca tgccctgtca cagggcgtat gtgntctgtt 660

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693

<210> 4491

<211> 725

<212> DNA

<213> Homo sapiens

<400> 4491

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ggctgtttcc actcaaggtg gaaggggaag gggggagcct gtgtgtgcaa gatcacctgg 660
caagagnagg aagaaggaaa gaggggangg agggaggana ngaggtnagt gggctttttt 720
tttaa 725

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<210> 4492

<211> 830

<212> DNA

<213> Homo sapiens

<400> 4492

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aaaagcgcta gggttgcaag tggcaccaag agacgtgcc ttgtcccggg gtccatttga 60

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<210> 4493

<211> 768

<212> DNA

<213> Homo sapiens

<400> 4493

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 acgttgcgaa cgccctttgg gcgttgggtgc tnggaggtgc tgggatgggc caagaanccc 720
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<210> 4494

<211> 541

<212> DNA

<213> Homo sapiens

<400> 4494

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<210> 4495

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4495

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<210> 4496

<211> 776

<212> DNA

<213> Homo sapiens

<400> 4496

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 gcaaaccacc tcaacacact atccangga taaaaccgc ttgtgtgtgc taaattatgc 660

caagagagaa cattctgata tttctcccca aattctaggc angcancgtt aacttggggc 720
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<210> 4497

<211> 355

<212> DNA

<213> Homo sapiens

<400> 4497

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tggcggcaag agcagacgcc cgagccgagc gagaagagcg gcagagcctt atcccctgaa 180
gccgggcccc gcgtcccagc cctgcccagc ccgcgcccag ccatgcgcgc cgcctgctga 240
gtccgggcgc cgcacgctga gccctccgcc cgcgagccgc gctcagctcg ggggtgatta 300
gttgcttttt gttgtttttt aatttgggcc gcggggaggg ggtttngnng tggtc 355

<210> 4498

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4498

caactcactg atgaaaagga ataaaccaca aatgcctgca acgcatgat gaatctcaaa 60
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atggaaatct agaaaagaca attcgaatat atagtggcaa aaagcagaag agtggttgcc 180
tggaaccagg gtgggaatga agattaactg cccagaggca taaaaaatgg ggtggtgggg 240
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 atgatgaatg acctaancct taatgagcgc cctatgtgcc aagcactgtg ctgaatgctt 600
 tgcagaaaac gaaattcatc cttatcagat angttcctgg aacactggaa aagcactatn 660
 caaatgttag ttacagggaa tccntgcacn ttngaagggg cctgttaaata tggtgaa 717

<210> 4499

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4499

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 tatgtttatt tattattatt attttttgag acagagtctc actgtcttgc ccaggctgga 180
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 tgcctaagcc tctcgagtag ctgggactac aggcgtgcgc caccatgccc ggctaatttt 300
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 gccagccta ccatatcagt ttttaataac ttgaactgaa attattggct tggnaatant 480
 tgggcaggcc attaattcnc attagaaant tacttaatat ttcaaaaaat tgactaaaac 540
 tggnaatctt tggggaggcc cattttgcaa gtggaaacct gtatttatca ttaagtttgt 600
 ctttaactat ttgttaacag attttaacag ttcaaatgaa anatgttaac ganatgcnnt 660
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<210> 4500

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4500

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cctgctcctt ggctcagtct ggcgccaccg gcatcacgga actgtacttc ccagagacgt 180
cacaccggga gacttccgat tcccgtcttt gagattggac tctcacgtgc aggagccagt 240
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tgtatcagaa agcaaaggag aatgaaaaag cacagctaac attgcttgag gatctaggcg 420
attaattctt tagactgtca tcatgggtat ccgangacta atgagttttg tggaagatca 480
taagcaatga attcttcact gatttgaagt tgcgggacac aaaaaattgt caatgatggg 540
gtatgctcct ttccaccgt ctttgcttca agttcaaact tggatttccg gtatggangg 600
gacnatgatt cctttgcaga atgttgnca aaaaattctt tgaatcactg tttgcnttgt 660
aaaaaaatgc ccaaaatgtt ggattaanat gg 692

```

<210> 4501

<211> 678

<212> DNA

<213> Homo sapiens

<400> 4501

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ctttctgcaa gacatccaag atcgatatga aaggctgcat aaaagttttg aaggagcagg 180
ccccagacag tgtggagggg ctgctaaatg ccctcaggtt cactacaaag cacttgaacg 240
atgaatcaac ttccaaacag attcgagcaa tgcttcagta gagctctgct caaagaagag 300
gatctatgtg ctgacctcag aagatgtata tgtttacata atttaataca gattgatgtt 360
aatacttgtg tatttacata accgtttcct tcttgtcact gaaatatatg gaccttaatt 420
tgtatcctga ctgactcaac ccagcagagc ataaattgac ttgagagcct tacctttgat 480

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gtctgaaatg aaacccccctt ctccaaaggc aaaattcgga gactttgatc ttgctactg 540
 gagtccttta acaacaccta taacgataaa aaattcctaa ttgtttgtgg tagtatttta 600
 attctanatg tggtatctct ccgggaagta tangtttata ggaaacacaa natanttgat 660
 ttcccggtgt cngttcag 678

<210> 4502

<211> 788

<212> DNA

<213> Homo sapiens

<400> 4502

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 caactgttgt tatgtcagtc gaagacttag ccagctatca agtcatgatc cgctgtggag 180
 aagacattgc aaaaaatact ggctgatatc tgaggaagag aaaacacaga agaatacgtg 240
 ttggaaatct ctcttcatag atacttactc tgatgtagga agatacattg accattatgc 300
 tgctattaaa aaggcctggg atgatctcaa gaaatatttg gagcccaggt gtcctcggat 360
 ggttttatct ctgaaagagg gtgctcgaga ggaagacctc gatgctgtgg aagcgcagat 420
 tggctgcaag cttcctgacg attatcgatg ttcataccga attcacaatg gacagaagtt 480
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 aaaggggccg aaacaaaaaa tgnnagtttt tctaaccaaa tgtccaaacc aaatgggctc 720
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 gggnttta 788

<210> 4503

<211> 857

<212> DNA

<213> Homo sapiens

<400> 4503

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agtgtataaa ggtccccggag aagtgtcact ggccctgagt gggacccggt agcccgttcg    60
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aggagtccga cctctctctc attattgcc agatagtcca aaagctcaag ggctccaatt   180
tgtactctca gctggaacgg caggcctggg ccagtcttca gagacctgag attaaacttg   240
aatcactgaa agaagatatt aaggaattct ttaaaatata aggttggggag aagaaacttc   300
agaatgctgt ttatagttaa ctgagtgtgt ttcctttacc tagtcatcct gctgcacctc   360
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gaattttgaa gagtttaaata agtatgtgca ctgaactgag tatccactg gcacgaaaga   480
ggccagttag agaacagaaa gaacttctta ataatggaa tgaaatggga actgatgaac   540
cagatttaag ccttttcaga cctgtttatg cacctaagga ttttcttgag gtattaatta   600
atcttcgcaa cccaaattat gaaaacgggtg attctcccta gtttcaggga ctcatattggg   660
gtttaattca agttccactg aaaagtaaaa gacatccctt gaaatttgaa aagaatgcct   720
ttgtgggaac ttgggcttaa aattattagg gacaaactgg ggtatnagaa tgaattccta   780
caciaagatng ccctcctggn aaactttttt gaaaaattgn gcaatgttac gntttttggg   840
gccaaaaaaa ggttcct                                                    857

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<210> 4504

<211> 411

<212> DNA

<213> Homo sapiens

<400> 4504

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attaatatat gaagaaaact gaacagtcct taatctgtgt aggcattaca tccatttgta    60
ggaggtatatt ggtgacttgg tacaggtttc tttgttttgt gtggtttgtt gaagatgcaa   120
tgaccgggat gaatgagtga acagctgggt gaggcagggg atgggcatta tgaagttggg   180
ggatatattg tagatgaaac agatgaccct aaggaggtaa tgaggggggtg gactaaagaa   240

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tgacgaatgg gagaagggaa aatattgaat tcattcttagc acaagtatat catcctttga 300
agaataatcc aaaacacatt ccagacatta attgtgaaat tcctgaaaaa tgtgggtgtg 360
cttaacatct cccangctat ggtgcaagca gagatgatan tgttgcttta n 411

<210> 4505

<211> 855

<212> DNA

<213> Homo sapiens

<400> 4505

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cgggagtgca ggcctgagtg ttccttcag catgtcggag ggggagtcac agacagtact 120
tagcagtggc tcagaccaa aggtagaatc ctcatcttca gctcctggcc tgacatcagt 180
gtcacctcct gtgacctcca caacctcagc tgcttcccca gaggaagaag aagaaagtga 240
agatgagctc gagattttgg aagagtcgcc ctgtgggcgc tggcagaaga ggcgagaaga 300
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gctacctgca ctccctgtgg acccccccat caatccaatg gggaaacctn gaccctgttg 720
acaaccaatc ttcaatcaa gccacaaacg ggactcatca aagaattggg gtcctgttgg 780
gntccctggn caaccaattc aaacaaatca atggtgtaag aacctttttc caagaaagag 840
ccnncaggna aatcc 855

<210> 4506

<211> 768

<212> DNA

<213> Homo sapiens

<400> 4506

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atgtgactgc actgaaatct aaggatcgga aagaatctgt gggttcaggag gaaaattcct 60
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tagggtttaa cattgaaata aaatggatct gccagcaaag ggatggaatg tgggatggta 180
acttatcaac atattttgac atgaatctgt ttttgatat aattttaaaa actgttttag 240
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ttcggcaaaa gcagaacaaa tatccgatac tatttttaac tcaaggaaaa tctgagattt 360
atcctgaact catggacctc agatctcgga caacccccat tgcaatgagc tttgcacagt 420
ttgaaaatct actggggata aatgtacata ctgaagactt gctcagaaac ccatcctata 480
ttcaagaggc aaaagctaag ggactagtca tattctgctg gggatgatgat accaatgatc 540
ctgaaaacag aaggaaattg aaggaacttg gagttaatgg tctaatttaa gataggatat 600
atgattggat gcctgaacaa ccaaatatat tccaaagtgg gagcaattgg gaacgcctga 660
aancaaggaa ttgcccaaaa gccttaaaga ancctgtttt ggggtcccca actggttaan 720
ccgccttttg gtcccctcca aacnnttttg nggttggggg ggaantcc 768

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<210> 4507

<211> 652

<212> DNA

<213> Homo sapiens

<400> 4507

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attaaaaatg tactcatttt aggaaaattc tcctaagata cttgagttat aattgctata 60
gaggacatgt acatattctc agttgataga gaatacttgt cctgaaagt cttcatgtcc 120
tggagggact cagaggtctc atggttcaaa gattcaggtg gttctgagac atgatctgtt 180
tattctcttc tatccatta tcgctttaac tttattgtat ttttactttt tggaaatgag 240
aatagtgggt ctttgttact ggacccgtga ctttaaaaaa ggaagttctt tttatttatt 300
attattatta ttaattcaa tcctccaaga catcagaaaa aagagggagt tcttgaatat 360

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cttttggctt agttattatt tgatttcata tatcatctca gatttaccta aacttggata 420
aatgtaattc atatacttat ttgataaaaa tgtcntttta aaaattttta ttcaccaaac 480
tacttcagga aataaaatgt ttccttaaga aaaaatatgt ttagtaatgc gttttcncct 540
gaaaataaca gggtaaaaaa gntcncctta atggatgcca gggtaataag gcaagtttaa 600
gctcctttca aaaccctaa anttgggggg aaagaaattt ggncccnttg gg 652

<210> 4508

<211> 779

<212> DNA

<213> Homo sapiens

<400> 4508

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tttttatttg ttaacaaagg tctgaataca gatgaattag gtcagaagga agaagcaaag 180
aactactata agcaaggaat aggacacctg ctcagaggga tcagcatttc atcaaaagag 240
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caaagttgtc cagcagaagc tcctcctgct tatactcctc aancctgctga aggtcactac 600
actgtatcct aagggnacag attctggggg agttttcatc agttggagaa ggagttttat 660
anggaatcat tctcaagcca ccgcctcctt gagaccttan ggctgggaat nccagattga 720
antgattttt gatacccaaa atgggagtac aagatttttt ttgnnaaat ccctggcaa 779

<210> 4509

<211> 840

<212> DNA

<213> Homo sapiens

<400> 4509

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cacgaagccc tcagcattat tgtggatgaa tataaggcac tactgcagtc ttcagttaag 180
caacaagtag aagctattga aaaacagtac atttctgcaa ttgagaaaca ggcacacaag 240
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gcaaagcttg aaaaagaagc agtgaaggat gcagttttaa aagtcgtaga agaagaaaga 480
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caggaaactg ttaaggcagc aataatagaa gagcagaaac gaagtgaaaa ggctgtggaa 660
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tcgattaagt catcccgcca aagaagcctg tccagtttgg aactggtcct ccccngtgc 780
acagnaaaca gttaagtgcc tttaatagcc tacggganca anttgacatt ggantaaaaa 840

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<210> 4510

<211> 803

<212> DNA

<213> Homo sapiens

<400> 4510

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agccgcctgc tagtggcgct gctagccggc cggcgcaggc tgccgagcgg gtgagcgcg 60
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gtccgcgcgg ctgctgcgag cggtgatcat gggggccccg ggctcgggca agggcaccgt 180
gtcgtcgcgc atcactacac acttcgagct gaagcacctc tccagcgggg acctgctccg 240
ggacaacatg ctgcggggca cagaaattgg cgtgttagcc aaggctttca ttgaccaagg 300

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gaaactcatc ccagatgatg tcatgactcg gctggccctt catgagctga aaaatctcac 360
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gtcctgggat attaccaaga aaaaaagggg gtgcttgga aacaattctc ccgggaacaa 720
gaaaaccaa caaggatttt gggccctaag gttntaatgg ctttcctaa caaanaccta 780
aaangntnc caacaaaagg gaa 803

<210> 4511

<211> 713

<212> DNA

<213> Homo sapiens

<400> 4511

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gccatctacc tcttctcttc tctgtgccag gcaaggagca gcaaatgagc ccaggtacac 180
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aagggatatt ttatncctt tatttgggac gcttgtttct tcaagctcag tttaactact 660
gctttgacnn tggactggct cgttaaaaca ntatncacca agagttcaag gaa 713

<210> 4512

<211> 778

<212> DNA

<213> Homo sapiens

<400> 4512

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atgaagatga caaggaatct gagaaaaagg ggttgattga aagaatctat atggtacagg 180
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cagccaccat cattttgtat ttcatccac tgcggtacat cattttaatc tggggcataa 360
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gacagcagca cccaatattg ggtttggttg agtagaccaa tgttatggct gtttcagtgg 600
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cttcacgtgc acaagacata cacacatgtt gcacacaccc tcaagcatgg gtgtcctaaa 720
ttgcnnanag gggcanccca ncgaaaaagc aacaaacccc aaagactgtg aaaagact 778
```

<210> 4513

<211> 824

<212> DNA

<213> Homo sapiens

<400> 4513

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gcacctccgc ctgcccgcg ctaggtcggc cggctccgcc cggctgccgc ctaggatgaa 120
tatcatggac ttcaacgtga agaagctggc ggccgacgca ggcaccttcc tcagtcgcgc 180
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cgtgcagttc acagaagaaa agcttggcca ggctgagaag acagaattgg atgctcactt 240
 agagaacctc cttagcaaag ctgaatgtac caaaatatgg acagaaaaaa taatgaaaca 300
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 tgatgcaggg actgagtttg gcccaggaac agcttatggg aatgccctta ttaaattgtg 480
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 atttccttac tcctttaaga aactttatag aaggagatta caaaacaatt gctaaagaaa 600
 ggaaactatt gcaaaataag agactggatt tggatgctgc aaaaacgaga ctaaaaaagg 660
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 gtggaatttg atnggtcaaa gcaagaggat tancaagact ttctgcctaa nagggggaaa 780
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<210> 4514

<211> 832

<212> DNA

<213> Homo sapiens

<400> 4514

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 gtctcctcct tccatgccta caaccgcatg accccacaga acttggccgt gtgcttcggg 180
 cctgtgctgc tgccggcacg ccaggcgccc acaaggcctc gtgcccgcag ctccggccca 240
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 aaacgacagc cacctctgca cctgccgctg gcagaccccc aagtgggtgac tcggccccgc 420
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 gtgacgggca gtgacagcna ggacnaggac naggaggctg gcgagccgag ggtcaccggt 600
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ganggccctc atcctgggat ctgggagaan agaagctctc caaagcaaat tcaaanttgt 720
gcctccngaa gccaagattg aaccgggggt ggggaacccc cggggttang taaaggggac 780
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<210> 4515

<211> 645

<212> DNA

<213> Homo sapiens

<400> 4515

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ggagtgaagg agcgggagtg gcagatggag tctctcattc gttacatcaa ggtgatcggt 180
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aacaccaag tgtgaggaca tgctctgctt ctcgaggaga ggctacctca acatcaaagc 480
cagcaccttc cctgtgcacc ggcagaagct gcagggttt gtggtcggct acaatggctc 540
caagatcttc tgcctccatg tcttctccat ttctgccgtg ggangtgccg cantccgctc 600
ccatgtacca anttacctgg ataagaaact gttcaaggn aancc 645

<210> 4516

<211> 777

<212> DNA

<213> Homo sapiens

<400> 4516

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aagcccccg ggctaaaatg gaagcacctg cgggatacag tggagctaca acttctgaag 120
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 aaccatccac tggatatgtg accagcattc gcccatctca aggttggcgt gggacatcgg 300
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 gctacagatg acttccgtga ggacgggagg ctggtagaga agacaaccta tgaccacgtg 480
 accagagaga agctggaccg cattctggcc gttatccaag gctcccatca gaaggccctg 540
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 gaggcctgat ncggcccaat gaacaaagtc ccccgatgct gataactggg naatcccgat 660
 gcctctactt tgcaactccg ggaaattcct cttaaaaggg tgcaattgca atggcattga 720
 naaccananaa aaggaacttc cgggnaaant ttgggntcaa aggaaaaatc ccggcct 777

<210> 4517

<211> 916

<212> DNA

<213> Homo sapiens

<400> 4517

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 ctaagtgtct ttagtaggta gcaatcaaat ggtgtaaata aggatgttct tttcctgttc 180
 cttttatttt tttctctctt tattattctt ttattgacac cactagatag ctggccactg 240
 gtcattgcat tgccaagatg aagaaaaagc aaactacact ttggcctctg gttctgaatt 300
 gcagaaatca aaggatgcag taggtgtcta tgtcagaatt atggatcaga ggcagacaat 360
 gacgagtga gatggttgtg aagccctctt cattcctgga ggagcctgca tctcatctct 420
 cangccctct ttctctgtgg gtctcaagaa cagcantggg gaccattgag cacttgaatg 480
 gnetgtttgt ccaagggtct gcaaaggaca agcaagagtt canagagctc aaggatagaa 540
 acatcagagc ctctccang gggcttcann tgaaaactcc gatgaactgg tacctgaagg 600

gaantttttc ttaaatacaaa ccccttgggg tgggattaaa tacaaggga acaaccaaaa 660
 cctttgtggt accgtaatga aaaagtccaa tggttggtta aancaanttt angaatttaa 720
 aggagggttt taaagtccag aagggggaatn aatctgggaa gggcccgggc ttttggtggc 780
 aaagcctttt taacaagccc ttcctgcaan ntgggtccct taaccctgg gccttggtac 840
 aattgggggg aaaangggcc taatgggttt taaaacaaaa gntggctttt aaaaagggcc 900
 ctcctgaaaa agtttt 916

<210> 4518

<211> 760

<212> DNA

<213> Homo sapiens

<400> 4518

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 gtaattcttc ctctataaag aataggtata ggaaagactg aataaaaatg gagggatata 120
 cccttggatt tcaattgcat tgtgcaataa gcaaagaagg gttgataaaa gttcttgatc 180
 aaaaagtcca aagaaaccag aatttttagac agcaagctaa ataaatattg taaaattgca 240
 ctatattagg ttaagtatta tttaggtatt ataatatgct ttgtaaattt tatattccaa 300
 atattgctca atatttttca tctattaaat taatttctag tgtaaataag tagcttctat 360
 atctgtctta gtctattata attgtaagga gtaaaattaa atgaatagtc tgcagggtata 420
 aatttgaaca atgcatagat gatcgaaaat tacggaaaat catagggcag agaggtgtga 480
 agattcatca ttatgtgaaa tttggatctt tctcaaatcc ttgctgaaat ttaggatggt 540
 tctcactggt tttccgtgct gatagtaccc tttccaaggt gaccttcagg gggattaacc 600
 ttcctagctc aagcaatgag nctaaaagga gccttatgca tgatcttccc acatatcaaa 660
 attaactaaa agggcactgg aagtttggca atttttcctg ccctgctcct gccnaaganc 720
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<210> 4519

<211> 710

<212> DNA

<213> Homo sapiens

<400> 4519

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taagctttgg taaataagac atatctgcta caaaagatgg tggatgtttc atataccttc 60
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agcaccatga gaatacaata gaatggtaga gtgactgact taagctaata ataacattct 180
aagattaatt gaaacataaa tgacccccag acaaatatc tgagtgacaa aaattctggt 240
ctttaaaaat gttatctata gttagataaa gtttggggca gtggaggcta tcttaaaatt 300
aatcatccaa tgaatatcag caatggattt acagttttcc ctctgacttt ctaggttgtc 360
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taaaactagaa ggggtgctaga tatatgttca gtgatgatta gaatcttaac attaaacaat 480
tattgtttta aagcaataaa tctgggctat attctgtcca tggctcatat gtatttaaaa 540
agaatggaaa gaattttgag agtaaatttt ttgaatgtta ttttcctttt aaattggnaa 600
cttaaatggg gttatcctta aagacatggg tggggaacca ctggnanang gaaatcnaat 660
acccaatgg cctttggaga aaatttgta agcctacatt aattgggntc 710

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<210> 4520

<211> 208

<212> DNA

<213> Homo sapiens

<400> 4520

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agtgcgtgag ttggtggcg gccggctgtg cagagacgcc atgtaccggc tcctgtcagc 60
agtgactgcc cgggctgccg cccccggggg cttggcctca agctgcggac gacgcggggt 120
ccatcagcgc gccgggctgc cgcctctcgg ncacggctgg gtcgggggcc tcgggctggg 180
gctgaggctg gcgctctang tnaaactg 208

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<210> 4521

<211> 621

<212> DNA

<213> Homo sapiens

<400> 4521

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agatttaccc atatatttat catttttttg tatctcttct atacctccaa acttccattt   60
ggaataattt accttctgcc tgaaaggact ttgtcatttc ttttaataaa ggtctgctga  120
taagaaattc attcaagttt ttgtctactt ggaagtattt atttcatgat cactcttaaa  180
ggatattttg actgggtgta taactctagc ctgttaatta tttttttcaa gcactacaac  240
gatctcattt ccattgggtat ctgttttccc atgtttctgt tgagtagttg gctgtcaaac  300
taacaaatgg tcatttaaag ttaatctacc acttttcctt tggctgctct tgatatttct  360
ccttgtcttt ggtttttgca gttttatttt ttgttgactt ttttttttaa tcttgcttgg  420
gttctgcagg acttcttaga tctgtattga tngtctgtat cattttggga aatatctcaa  480
ccattatctc tttaaatata atttttgcct atctctcttc ttttgttgag gaccccaact  540
tcccatatga tgaaatttct cacaattcna atttcngta tcncttggct gccctaagcc  600
tggggttgcc tgggaaagca a                                           621

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<210> 4522

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4522

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ggagaacttc cccaacctag caagacaggc caatattcaa atcagtaa atacagagaaca   60
ccacaaagat actcctcgag aagagcaacc ccaagacaca taatcatcag attcaccaag  120
gatgaaatga agaaaaaaat gttaagggca gccagagaga aaggctcggt tactcacaaa  180
gggaagccca ttaaactaat agcagatttg tctgctgaaa ccctacaagc cagaatagag  240
tggggggcca atatttaaca ttcttaaaga aaagaatttt cagcccagaa tttcatatcc  300
agccaaacta agcttcatta gcaaagaaga aataaaatcc tgagagacaa gcaaatgctg  360

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agcgattttg tcactaccag gcctgcctta caagagctcc agaaggcagc actaaacaca 420
 taaaggaaaa accagtagca agccactgca aaaacataac aaactataaa gaccaccgac 480
 actatgaaga aactgcatca actaacaggc aaaataacca actagcatca taatgacagg 540
 atcagattaa cacataacaa tattaacctt aaatgcaaac gggctaaatg ccacaattaa 600
 aagacacaga ctggcaaatt ggatagagtc aaaatccatc attgtgctgt attcaggaga 660
 cccatctcac ggtgcaaaga cacacatagg gctcaaaata aagggatgga gggaatattt 720
 accaagcaaa atgggaaagg gaaaggaaaa aaaagcaagg gggttgcaat cctaaggtct 780
 cctcattana gcaggacctt ttaaaaccca aacaaanngg nttaaaan 828

<210> 4523

<211> 575

<212> DNA

<213> Homo sapiens

<400> 4523

atattgtatg cgatcgtggc aggattgcgg acgggcagca ctctttctgc agaaggtaaa 60
 aatcaccttg ctgaggaagc ttttcgtctg ctgattcttc tttgtgacat cggggaataa 120
 ggatttattt ctaacagtct tgggggctcg tctgggatca cccagtctcc ttcgggtcgg 180
 ggtctctgat tcccgcccc ccaccaaggg gaggcgcccc actgccttac tgcggtggcc 240
 tcagggactg ggaatccgga cttacctgtt gtgatgaata aaccgggacc ctcagcaacg 300
 tggaaaacgg cgaataggct tgcatcgac tgcctcgggg accaagataa actctgttca 360
 cagagcaaaag taaagaaacg tcccaagggt gcgacaaagt acttgcttgg tggctcnggat 420
 attctggagg ttaaaagtgt gtgtgaatag tcacaagcct cactgcagct gggtgttgct 480
 tngntaaatc atgntaaagt cctactgctg ggacccgagc cgaagtgagt cctgcctgcg 540
 gttccgttng ntacctcat acggcttaag ggcgg 575

<210> 4524

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4524

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ttggtgatgt gcacgtttct gaatttcaag attttttttc tgtgtccttc agggagaata 60
aatttctata tagtgtcaag atgctacata atgggataaa gaattatagt taagtgggtg 120
aatctcattg tgctttttgt actgtgtagc ataataccaa attcctctat tcactaaata 180
aacatttgtt gaatactgtc ctaaaacagc ctgttgaagg atacaaaagg atatctagaa 240
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aaatagccac agtagtatag agccaagagg taagcacaga tcaaacatat ttaagggcta 360
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aggatgctgt cattgaagaa ttiggccatg atcaaagtag ccctttatgt agttaaatgg 480
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aaaggagaac cgaatttgaa cactgacctt gtcattaact anctgcatgg cttgagcctt 660
atcacctgtc agggatttca agcttccctt atttgcaaaa tgggaagtan naaggctgtt 720
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<210> 4525

<211> 777

<212> DNA

<213> Homo sapiens

<400> 4525

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aagatatgta ctgcaggccc agatagataa ggagagtgat gaagtgaacg aaggggaact 180
gaaggaaatt aagcaggaca tctcaagtct ccgctatgaa ctccttgaag aaaaatctca 240
aaatacagaa gacctagcag aacttattag agaacttggg gagaaattat ccatggaacc 300
aatcaagag gaaaccaata gataatgcga agacttcctt agaaattcat atttatttgt 360

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ccacttgaag ccatattatt ttctgattta ttttcttaag tgccaatggg cccacctttt 420
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 tttttggtga ttaaactcca ttgttcaagg taaaggctgt agataatgag ggaaaattat 540
 gcccagtgtg ttggtgcttg ttttaaaaac tggctttctt ggatataact aactcctgtg 600
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 ttgaccacg tttacctccc ccatggcggg ttttttccct ccngaagggt ttattttcaa 720
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<210> 4526

<211> 541

<212> DNA

<213> Homo sapiens

<400> 4526

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 cctcttgcag gtcaaaatac tatgtacata ccacataaac actagggtat ctgttaaata 180
 tattttatgt tgataccgtt tttacttggc aaagttggat gcacaaagaa tagtagtctc 240
 atattttaac aatgctgttg atttcttctg tagacattta tttcctgtta cctgcaagggt 300
 gtttaggatt tggatTTTTT ttgatgttt tggctTTTTT ggatagttgc taaagttcct 360
 cactatttta cctaggctat ccttataaat aaataccatg aatttttaaa accacacagg 420
 tcaactaaag gtccncctt cctggggggg acccanggcg ttaaaatgaa atttggggag 480
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<210> 4527

<211> 418

<212> DNA

<213> Homo sapiens

<400> 4527

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gcctcttgcc gccgcagcag cagcagtacc ggcatcctcg gctcgcgctc gctaccttcg   180
cccgtccgc gcaatctggg tgccgccggg gagcccagcc cagcgccgga cgcgtagtca   240
atccgttgcc cagcgttgcc cagcggctgc cgcttggtcca gggggagaat cagcacgac   300
ctggtctggg ggtggaacag gggcgtgagg cgggagagcg cgctagggcc gagcccacna   360
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<210> 4528

<211> 590

<212> DNA

<213> Homo sapiens

<400> 4528

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gaatttaggt ctgaaggctt aattagattt aagttaaact tttttttttt tcttcccaa   180
gaataattta tacaggatgc tgtttcatac tgcttaaag cacatgacaa atgtagact   240
gtccccacta ttagcaatgt taagattgat cttgcagtaa aggttctcag aactttatct   300
ctccattgta aatatttcct tttcccaagt aatctgggac atcataanag tatcttattc   360
ttggttgggc acagtggctc acacctgtaa tcccagcact ttgggaggcc gaggcancgg   420
accacttgaa gtcaggaatt cgagaccagc ctggctcaca atgatgaaac tccatctcta   480
ctaaaaatac aacaaattag ttgggcatgg tggcgcatac ctgtaatccc agctactcac   540
gaagctnatg cangagantc acttgaaccc tnggagggca anagattgca   590

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<210> 4529

<211> 690

<212> DNA

<213> Homo sapiens

<400> 4529

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tctaccatag ggttctacag cgagtcgggc atgcctacca aacatctttc agacagtgtg 180
tgtgctgtgt gtgggcagca gatctttgtg gacgtcagtg aagaggggat cattgagaac 240
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ggccactcaa ggacccccctc cgggctgttt tcnggacctg gggggaaggg gatatgatgg 660
ganaaccang ccanttgggg ggctgggtcaa 690
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<210> 4530

<211> 549

<212> DNA

<213> Homo sapiens

<400> 4530

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gaggccaaga gcgcggggcg cgaggcaaga tggcggcaac caagaggaaa cggcgtggag 60
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agcggcacgc cacagcagag gaggtggagg aagaagagag ggaccggatc ccaggccccg 180
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attttagaac aagacattta atgcaggact tgagaatgtt gatgcctcat tctaaagcag 300
atactaaaat ggatcgtaag gataagctat ttgtgattaa cgaggtttgt gaaatgaaga 360
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actgtaataa atgcatctat tttgaagcta agaaaaaaca ggatctctat atgtggtaag 420
agaatgtatt aagattttgg ttaaactcat ttaagtggat ttgttcnttg naccttttat 480
gttatagact cctaagtgtt catgttaang gttgagaatg aagcaaactt ttggnittca 540
cnaaacttg 549

<210> 4531

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4531

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tgcacccaaa gtctttttatt tactttttta actacagcca cactttgagc aggtatggaa 180
cacaatcatt gattaatcta atatatacaa tagggagaac cgtaactaca gatttacaga 240
ttgtggagct gcagcagttt ttcagtaaca tggtggagga acaccagagg atcagagttc 300
atgccaaactt acagacaata aagaatgaaa atctgaaaaa caagaagcta agtgccagga 360
tagctgcgtg gctaaggnga aacacatagc ttggggctat ctttcagcac tcctcctgca 420
tattaaaatg tagtttgntc acaagttttg ncctccaata ctttgtgagt ccgggaaacc 480
acacatttta ttggatttc aagtcacatt tattactcag agtgccaatc ctncanaat 540
gtcatgtttg gncctgaagg tgggtgantg ctgacaattt tgccaatgct gctgtatttc 600
tgggaaagat gtcacntca 619

<210> 4532

<211> 742

<212> DNA

<213> Homo sapiens

<400> 4532

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 ggtagctcca aaaacctcgg tggaaagtca tcaggcagac gccaaaggcat taagaaaatg 180
 gaaggtcact atgttcatgc tgggaacatc attgcaacac agcgccattt ccgctggcac 240
 ccagggtgccc atgtgagttg ctccgttgct gcccccttt ttccttttct aggttgacct 300
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 taagggtgaaa tgccaagaga cctagacggg gtggaaggag caagtgactg ctgggatttg 480
 caccagggtct gcctaactcc cagatcacta tgatttgccc tgggtgttgca ttggcctggn 540
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 aatattatit tagtcttggg gaaactaaat ttcaatttat taagtttttc attattcnaa 660
 gacttcttcc tttgtataaa cttacttgca anatgggntg aaaanatanc ttgaaatttt 720
 aatgaaaata gaaattcaag tg 742

<210> 4533

<211> 516

<212> DNA

<213> Homo sapiens

<400> 4533

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 gaataaaaaac aggggtggagg ggacaggaat ggatttttga caaatttaac tttggtatca 180
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 aagtattaat ctgaaagtat taatgtntaa tacaggatga aacaaataag taactggtaa 420
 tgtcatggga ancaagattt tcagcaaaga aagntaaaat attaattgta ngggtttgca 480
 naacttattt aaaaccaa at ttggantggg aatata 516

<210> 4534

<211> 368

<212> DNA

<213> Homo sapiens

<400> 4534

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ctctggatcc cgccggctcc ccaaggctga aggagacaag tctggatccg caggagcccc 180
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ctgctgctac ccccantcca ggcccacanc ttccgcagcc ggcccgggag cctgcatgcg 360
ggcgantg 368
    
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<210> 4535

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4535

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cactcgcccc gtcacgtggc aagctggagt acccaggcca ggcccctgaa gcagagaagg 60
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ccaaggctga ggagctggtg aatacagcac cactgactgg agtgccccag catgtccccg 180
tgcgccttgt cactgtggac ggcggggggg ccttgggtgga ggtgacagag catgtcggct 240
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gcgccctcgct gcggctgacc gtgtgggccc ccctgctacc gctgcgtatc gagctcaccg 420
acaccaccct cgagcaggtc cgcggtgga gggtacctgg ccctgctgaa gggcctgcgg 480
    
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aacccgctgc agaggcgctcg gatgaggccg anaggcgcg cctgtggctgc cacctgcagt 540
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 gccgcctcac gcacctgctt gggccccgac tggctgctan aacgtgtcca actccgtggc 660
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<210> 4536

<211> 732

<212> DNA

<213> Homo sapiens

<400> 4536

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 cttactgctc ctcagactgg gcgcttctga gggaggaaga aaaggagaaa tacgcagaaa 240
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 ctgttttcac accactgagg aggccaggca tgcttgatcc aaagcagaat gtttcacctc 360
 cagatatgtc agctttgtct ttaaaagggtg atcaagctct ccttggaggc attttttatt 420
 ttttgaacat ttttagccat ggcgagctac ctctcattg tgaacagcgc ttcctccctt 480
 gtgaaattgg ctgtgttaag tattctctcc aagaaggat tatggcagat ttccacagtt 540
 ttataaatcc tgggtgaaat tccacgatga tttcgatttc attgtcaggc tgcaagtgat 600
 tctagtcaca agattcctat ttcaaatttt gaacgtgggc ataaccaaaag caactgtgtt 660
 acaaaacctt tanagattta ntcaccccaa ccaanggaac tnggncacct atccactgga 720
 agtctgatga ta 732

<210> 4537

<211> 767

<212> DNA

<213> Homo sapiens

<400> 4537

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aaaaattact atgaagtact tggagttacg aaagatgctg gtgatgaaga tttgaaaaaa 60
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gatgctttta aaaagattgg aaatgcttat gctgttttaa gtaatccaga aaagcgaaaa 180
cagtatgacc tcacgggcaa tgaagaacaa gcatgtaacc accaaaacaa tggcagattt 240
aatttccatt gaggttgtga agctgatata actccagaag acttgtttaa tatatTTTTT 300
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cagttgatgg tctctaatec tccttattcc ttatatccca gatctggaac tgggcaaact 540
attaaaatgc aaacagaaaa cttgggtgtt gtttattatg tcaacaagga cttcaaaaat 600
gaatataaag gaatgttatt acaaaaggta naaaagaagt gtgggaggaa gattatgtga 660
ctaataattc aaataactgc tggaaaagaa aggcaacaan nnacagatat gcagtatgca 720
gcaaaaggta taccggtgaa ngatcgactc cgaagggaag gnaaatg 767

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<210> 4538

<211> 645

<212> DNA

<213> Homo sapiens

<400> 4538

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ctaaaggcag cccagagctg gctaaagcgg ttcctggtat ggaaacctag gcccgcgagt 180
gccccggccc agccccgcct agttcaggaa gcggctcagc cccagggcag cacatcagag 240
acaccatgga acacagccat tcctctgccg tcgtgctggg accagtcttt cctgaccaat 300
atcaccttct tgaaggttct tctctggttg gtcctgctgg gactgtttgt ggaactggaa 360
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cctgaagaga agaaagaggg agagaagagc gcctactctg tgttcaatcc aggctgtgaa 480
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gcagggagat angaccanc tgtgctgtca tgcagctaac ctctgatgtg gtcttccctca 600
acattggnta tggattttgn tticaagtgt atangactaa aggca 645

<210> 4539

<211> 507

<212> DNA

<213> Homo sapiens

<400> 4539

gagaaaagtc ggcagcagag ggaacaggga agaaacctaa aggctgcagg ctgccangtg 60
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gcggtgggca aggaggggaac tcgagagcag cctccatggg cacacaggag ggctggtgcc 180
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gagctctcgc cagcagttag gacagggcaa gggcctccct tgtgctgaag cangtgccag 360
tgctggacga tngctccctg gaggacttca ccgatttcca agggggcaca ctggcccaag 420
atgaccacc tattatcttt gnggcctcan tggacctgtc canattcccc angccgaggc 480
cttgctccat gctgactgca ntgggaa 507

<210> 4540

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4540

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atgagagaga cccagccata gaatgatttc agttaagagt attctatgaa gaaagagcag 180
 caaatgctaa ticcctaagg tagatataag gttggcatgt tggaaagaca gaatgggttt 240
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 tgaggtttgg ctacaagacc agaccctact cttgttttat atgtgtagct ggcagaatat 360
 aggtttaata gtgagacaag accaagaact acatgccagc tccattgttc aatttctgtg 420
 tggctttaag caatttagct aacctctcca agtcttaaaa cagcatggct tcaaatacat 480
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 ggaaagaatc taagaagcta ttgcactggc ccattcaaac attggttaga gttgcatgtc 660
 ctgctgtgaa aagagagatg gcagagacct gtgcaagaaa ccnttgtaag acagatnagc 720
 aggaanctcc tgctnccatg ganggtcaaa ggggtcaaat tgtaagcag ttaa 774

<210> 4541

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4541

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 aaaaaggaca tcccagtcct ggtggccaca gatgttgcag cccgtgggtct ggacattcct 180
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 gacagcaatt ttgctgggta cctgggtcgg aacttggnag gagccaatca acacgtttct 360
 aaggaactcc tagatctggc aatgcagaat gcctggtttc ggaaatctcg attcaaagga 420
 gggaaaggaa aaaagctgaa cattggtgga ggaggcctan gctacangga gcggnctggc 480
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 acagtacaag agtcactttg ttgcagccaa gtttaagtaa tcagaaggct gggaaattct 660

gctgctgggg caagttgggg tgggactagt gcaggagct ttgaattctg tttccaanta 720
aactcaagca naacaggggc cantannagt 750

<210> 4542

<211> 608

<212> DNA

<213> Homo sapiens

<400> 4542

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ggaagcggcc gggctggatc aggatgagag atcatcttca gacaccaacg aaagtgaaat 120
aaagtcaaat gaagagccac tcctaagaaa gagttctcgc cggtttgtca tctttccaat 180
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aattctcatc gagaatgttc actcagagat gtacagtttg ctgatagaca cttacatcaa 480
gagatcccaa gaaaaggga tttttattta atgcaattga aaccatgccc tatgttaaga 540
aaaaagcana ttgggccttg cgatggatan cangatagaa aatctacttt tgggggaaag 600
agtgggtgg 608

<210> 4543

<211> 414

<212> DNA

<213> Homo sapiens

<400> 4543

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acctcctata atattgaaac agattctgtg ccctttaag gagataataa ctaacatctg 120

gggagcgctt tacaatttag aaaaggcctt tcacacacag gcctgtttca tcttcacaac 180
aatcttataa aacagatata ttgttcccat ttcccaaata atgaaacgga agcgccgaaa 240
atatctccta tagggctctt caaactgtgg tcaacttagt aaatgatgtt gacagtggaa 300
gtgtgatcat tttattttcc tgcctttgga attgaagatt gtaattttgc aaaaattttg 360
ttgaagatga tgtacctttg ggtcaganan ctggagtaca atggnaccat ctca 414

<210> 4544

<211> 553

<212> DNA

<213> Homo sapiens

<400> 4544

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gcatcagact ttttccaaga gactttcaat tccagcagat acatggccac aagagctcta 180
cagggtgtct tggccatggc gccctggtgc tgcaactcct ctccttcatg ctcttggtg 240
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gaaaggctgc aattgggtga nttgccaaag aaatccaagc tgcanggaga tttancaagg 540
agctganccc ggt 553

<210> 4545

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4545

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 tacaccgaag atgatttcta ctgccccgtc tgtcaggagg tgctcaaac gcccggtgcgg 180
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 agttaaaaaa tgaaaagtta tgacattagc tttaaagggtg taaaaaagat gtttcactaa 780
 tgtaacngtg aaaagagaat ccctgggttg aacnttaacc tttttggtaa tnataaatit 840
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<210> 4546

<211> 737

<212> DNA

<213> Homo sapiens

<400> 4546

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 atttagagat gtacaaaagc tgaccgaatt cactaccagt caaccacac tacaagaaac 180
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tgtccactct gacaaactga agatggggac tccactcanc ttcgccagcc acaggnggan 480
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 ttctttcccg tcanaaaagg gatcccttgc ggacangacc taaagttgag taactgggtt 660
 cccctanttt tgctccttccg gggcctgggg tgctcccggg ggctcaaggg tgancgggga 720
 gaccctannt accgggn 737

<210> 4547

<211> 740

<212> DNA

<213> Homo sapiens

<400> 4547

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 cgtcttcgat acatcaaaca gctgggaagt gggtactaag tttttccaag gaagcttcac 660
 acaatcgant tgagcatant ccnagggttg gggtatccta acaaggatgt ccaattcaag 720
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<210> 4548

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4548

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catggaggat ccctccgagc ccgaccggtt ggcgcccgcg gacggcggga gcccggagga 180
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attcctaanc aagggtacct ttccgaaacc gggtgcctat ccttgtggga caacaanctt 720
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<210> 4549

<211> 847

<212> DNA

<213> Homo sapiens

<400> 4549

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aaaagaaatc tactcactct tctgtgtgca taaggccgag cagaggttct tcgtctcaag 120
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 ccaattgcat ttaanttttg gcaaggggca actccctgta naattcaaag ggcctggcat 780
 cgnaatccca aaagatgatg aattgtcaga aggacnaatt aagnccataa ccctaaggga 840
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<210> 4550

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4550

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 aagtggtgct gcaaaaccgt catgaangga caccctgcaa gcctgtnaaa nggaaggccc 720

ccngntgcaa aaggaaagca caaacctcta accgggaaca acaatggggc atgcacaaac 780
aag 783

<210> 4551

<211> 534

<212> DNA

<213> Homo sapiens

<400> 4551

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gatgtcttan ttagaaacca gattaataga anagtangcc tgatatatta catcatgagc 480
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<210> 4552

<211> 764

<212> DNA

<213> Homo sapiens

<400> 4552

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ctggggaagc accgagactc tanaagaaaa gcctccgggt cacaggataa gtctgctcca 660
tctggacaca aagnatctga cggtagaaga gntatttggg aactccttgc caaanggaac 720
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<210> 4553

<211> 636

<212> DNA

<213> Homo sapiens

<400> 4553

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<210> 4554

<211> 757

<212> DNA

<213> Homo sapiens

<400> 4554

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tcatccactn gagtttgtna gaaaaaacng gngagca 757
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<210> 4555

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4555

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gatcctgccc ctaagactgc tgaccttgta gctattggag cagaatatga aggcacagta 180
caatttccta aagatgaaaa acagtatcat gtccctctcc atttttgtta ctacagagaa 240
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 cgtattgccc aggctgatgt caaactcctg agttcangtg atctgccctc ctcggtctcc 720
 caaaggtgcc tgggattcan gtgttgance aacngcctg gcccggggat aacactttga 780
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<210> 4556

<211> 671

<212> DNA

<213> Homo sapiens

<400> 4556

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 taatctggtc ccagggaatt actggtttta ctgaacatct ccagaattat ttaaggtgtc 180
 aaaatatata accttcacat tgaaagataa aatttatggg cataataaaa atttgaatca 240
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 tcatagtcta ccctagtatg gtgctttgcc acaaagtgt tcttgaagaa tggttctttt 360
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 tgtattatga tttattaact tgttgatgca tgtaaattgg gtgcattttg ttgcatgta 600
 tgttaaattg tgaccaatgt ttttacaag gaattgaaca aaaaaagtat cttttaanaa 660
 anaacganan n 671

<210> 4557

<211> 882

<212> DNA

<213> Homo sapiens

<400> 4557

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ataccaactg tagttctttt tctgttcttt caattcagta gagtaaaaat aaaaaacagt 180
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caagtttttt tttgttttaa ggcaaactta aaattttaat ggaaacattt catatgaagc 300
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taaactgatt catgatgttt atgttttcct gttttagtg tacaaaatga agctgaaggc 480
tcacatgtta aatgaccct gaatagaata ggaagaacaa tgttcttaca ggtcataatg 540
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agaataaatt gagaccatta anccaatata atacttggtc aagagcactg naatcccga 780
agaggagaaa atttgggtaa aaattaaaaa nggttggggt gatcttaa at gcctcagtta 840
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<210> 4558

<211> 721

<212> DNA

<213> Homo sapiens

<400> 4558

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cccacctcca acactgggga ttacaattca acatgggatt tgggtggaga cacagagcca 540
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aagatanccc atgtagactt tttctgaaga taccccaagt ggnnaagatt ttttaattagg 660
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<210> 4559

<211> 851

<212> DNA

<213> Homo sapiens

<400> 4559

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gatttaacag cagagggcga tcttaacata ataatggctc tggctgagaa aattaaacca 420
ggcctacact cttttatctt tggaagacct ttctacacta gtgtgcaaga acgagatgtt 480
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taaagtagct cagtgggtgtg gggaaacgtt cccctggatc atactccaga attctgctct 600
 cagcaattgc aagttaagta agttacacta cagttctcac aagagcctgt gangggatgt 660
 cangggcatc attacattgg gtgtcccctt tccaagatt taagcctttt gggatacaag 720
 acctangttt acaatataat aaatattaat ggctaacctt tttaaaggatn taanaantag 780
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<210> 4560

<211> 707

<212> DNA

<213> Homo sapiens

<400> 4560

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 taagcaggcc ttcctactt atcacaagat tcattcaatg ctacatatgt acagcctaga 480
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 caagatttgg aggactaaag atgcagggat tgggtggttt acncattggn acnccnaaat 660
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<210> 4561

<211> 692

<212> DNA

<213> Homo sapiens

<400> 4561

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ttaacatgag tagtttattt tgggtgggctc canagtgtaa gaatatttta tttttgttt 540
gacataaaaa gtgaagttga cttgcgggaa taacaatcca gcaatgcttt caatctttct 600
gaataacaca agaataacgg ngctanaagc ttccgggatt anttgicca ttccagttaa 660
aggagtgngt tacatttaag gtttggaat an 692
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<210> 4562

<211> 682

<212> DNA

<213> Homo sapiens

<400> 4562

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tgcattactt atgttggtta acctcaaagt taaccttttg ctggttgatt atcgaggata 180
tggaaaaagt gaaggagaag caagtgaaga aggactctac ttagattctg aagctgtgtt 240
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cttgggtgga gcagtggcta ttcatttggc ttctgaaaat tcacatagga tttcagccat 360
tatggtggag aacacatttt taagcatacc acatatggcc agcactttat tttcantctt 420
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tccgatgcgt taccttcctt tatggngcta caaaaataaa tttttgtcct acagaaaaat 480
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 ccagtaatga tgaancaact ttatgaactc tccccatctc cggncataaga gattagccat 600
 ttttccagaa tgggactcac aatgacacat ggnaagtgcc aaggnnattt cactgcacct 660
 tgngacaagt tcatcaaagg aa 682

<210> 4563

<211> 631

<212> DNA

<213> Homo sapiens

<400> 4563

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 gtcagtttcc acctcagcac ttgccttat caacatgcgg tcgcatcta gtggccaaag 180
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 taaagtaaac ctttgctggg tggcccaaata tctggccnc aaggcaagat aagaaattgg 540
 gtgtaaagga ttttgttggg ggggcctggc caatgatctt tganangaat ccccgaatna 600
 nccaatagtt ttttttggtc naatttttgg g 631

<210> 4564

<211> 818

<212> DNA

<213> Homo sapiens

<400> 4564

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ccagaaattc ccaattgaga attgtgttag tgggtaaaac cggagcagga aaaagtgcaa 180
caggaaacag catccttggc cggaaagtgt ttcattctgg cactgcagca aaatccatta 240
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<210> 4565

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4565

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cttaatggaa attcaagacc tgatgtttga ggagatgagg gaaactctta aaaatgacct 480
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 ggaaaatana aggagaaaac tctaaaatan gtgatgataa tgaaaattta acctttaaat 660
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<210> 4566

<211> 790

<212> DNA

<213> Homo sapiens

<400> 4566

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 ataattttga agataaaaaac atcaanatat aaaagcaagt gctcccgggt gggactgtac 720
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 gcaatttnag 790

<210> 4567

<211> 531

<212> DNA

<213> Homo sapiens

<400> 4567

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tccccggtcc cccgccctgc tcacctctac tatgaagggt cccccangtc acctgtgctg    180
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cacccaacca ccccatggga tccccancc ctttaaccgn gcctgccttg tcccatgat    480
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<210> 4568

<211> 490

<212> DNA

<213> Homo sapiens

<400> 4568

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ttctgacgc tctggcgca tctggtggtc gtcacacct tattctggtc ccgggacagc    180
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tttacaaggg

490

<210> 4569

<211> 546

<212> DNA

<213> Homo sapiens

<400> 4569

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gcaatagtac cccgggggtg tggggcctca aatactgctt gccntgctcc gctaaccagc	480
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<210> 4570

<211> 729

<212> DNA

<213> Homo sapiens

<400> 4570

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<210> 4571

<211> 801

<212> DNA

<213> Homo sapiens

<400> 4571

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 cccaaaancg ggaactgttc aattatggga acccactagc ccacatgtgg ctgtttgagc 720
 aacttgaaaa tgtggctaag nccaaactgg agaagtgcen aaagtttaaa attacaaacc 780

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801

<210> 4572

<211> 739

<212> DNA

<213> Homo sapiens

<400> 4572

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ccccaattcn tggcaaaan 739

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<210> 4573

<211> 688

<212> DNA

<213> Homo sapiens

<400> 4573

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<210> 4574

<211> 422

<212> DNA

<213> Homo sapiens

<400> 4574

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caggtccatg cccttagatg tgccaaattg taagttgcat agatttttagg ggtttggggc 180
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tgagaaattg accattaatt tctgacagat agtttaagt cctcctgtga catacaaaag 360
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ca 422

<210> 4575

<211> 513

<212> DNA

<213> Homo sapiens

<400> 4575

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tgttccccct acaaggaact tcttgcagtt atccaaatgt tccctgtcct ggtgcacact  180
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<210> 4576

<211> 676

<212> DNA

<213> Homo sapiens

<400> 4576

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gccaaccctt gatgacctct cttcaacttt cggagaagct aaaacttact tatgaggaaa  180
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gaatcacttg aacctgggag gcggagggtg cagtaagctg agaccacgcc actgcantcc  480
aacctggcaa cagagtgaga ctccatttca aaaaagaaaa acanaanaag aaataagaat  540

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cactaactgc ncttatagaa attatgatat tcaagtaaaa taatgaaaat aaagcacttt 600
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<210> 4577

<211> 713

<212> DNA

<213> Homo sapiens

<400> 4577

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<210> 4578

<211> 727

<212> DNA

<213> Homo sapiens

<400> 4578

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<210> 4579

<211> 613

<212> DNA

<213> Homo sapiens

<400> 4579

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 aaacaaattt gatgtgtttt aaaagtgccg gctaaagtan aaagacatca ttaagaacaa 540

ctatgacatc ttcccataaa acttcccttg ntaactanac tgcattggatt attgggtttg 600
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<210> 4580

<211> 662

<212> DNA

<213> Homo sapiens

<400> 4580

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gcacacaaca ggagagagga gaaagaagaa acgctagtaa ttccaagcac tggaattaag 180
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gtcatganga gaaattgaac agctgaccct acaangatga naaggttgan aagttttaan 660
ga 662

<210> 4581

<211> 808

<212> DNA

<213> Homo sapiens

<400> 4581

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<210> 4582

<211> 798

<212> DNA

<213> Homo sapiens

<400> 4582

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 gaatttagtc atttatggat aaattaaaat gaacacctgg actcttggtta aaatcagaaa 180
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ttgtttaatt gggggacngt atangccttc cttgactgga caatnagaat gttggnatta 780
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<210> 4583

<211> 805

<212> DNA

<213> Homo sapiens

<400> 4583

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tactaaatat gcgagataac aaccctgaag tcaggcaagc tgctgcttat ggcctgggtg 180
tcatggcaca gtttggtgga gatgattatc gttctttatg ttcagaagct gttccacttc 240
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<210> 4584

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4584

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<210> 4585

<211> 704

<212> DNA

<213> Homo sapiens

<400> 4585

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<210> 4586

<211> 902

<212> DNA

<213> Homo sapiens

<400> 4586

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gt 902

<210> 4587

<211> 801

<212> DNA

<213> Homo sapiens

<400> 4587

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<210> 4588

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4588

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ttgacgggtg aaaacaagcc gaaccagttg tagttttaga tcctgtttct acacatgaac 360
cccaaacc aaagaccaggtt gctgaaaaag atccaactca acacaaggag gatgaaggcg 420
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tacangttct tttccggtgt cacttttgta agtagcaact ataaacataa gttaactgtt 660
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ggtttttttc ccna 734

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<210> 4589

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4589

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aaaattctcc gttctatgac aaataccgag gaggtagtga aaaaaaaatt aacaaacata 60
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ttgaagaaaa gaacagtaag aaaccagaaa gtagtatttt gggggcagct cacgtggagt 180
caggctcagt gtaggacttg agtgaaagac tttccaaga agccccaggg ctaatctggg 240
cagccctgga tgcttaggtc tggaaccag ggccagaatc tttgacagcc agatccagta 300
aaggccaaaa ccaagaatct cctccacac cagtggattc tcaacacaca gtgcacttga 360
tcaggctgtc agaattacct agagcagtg atattctgat ggagagaatt ctctgaacaa 420
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atttggttaga agccaattct aaacattcaa atattcnaat atgtaaacaa aaaaactgga 540
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 ttcactttaa tcagtttgct ttcagaacat aaactgcatt ctaaaccctg ttattttggt 660
 cctaataatta acanccccna aagagaagtt agatgtttat atngaangcc agggaagttg 720
 gtaaagtgat attatccngt gggatttta 748

<210> 4590

<211> 606

<212> DNA

<213> Homo sapiens

<400> 4590

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 gccaaagctgg gccttcctcg gatcaggcgt cccctgaagt cggcacgccc ctctgcgtcc 180
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 tgagaggtct ggagtggctt gccgagtcaa gtactgcaat agcctccctg atatccctt 360
 cgaccccaag ttcattacct accccttcga ccagaacagg atcgccagt acaaagccac 420
 ttccttggag aaacagcaca aacatgacct cctgactgag ccagacctgg gggtcacat 480
 cgatctcatc aatcctgaca cctaccgcat cgaccccaat gttcttctag atncaagctg 540
 atgagaaact tttggnanaa gagattcaag cccccacaa gctccaagag attccancaa 600
 ncacgc 606

<210> 4591

<211> 654

<212> DNA

<213> Homo sapiens

<400> 4591

gctgggaccc	tgaggcggcc	gtggttaggc	ggctccccgg	cggctcctcc	gcggcgggtga	60
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ggccgctccc	gagcgtcgga	agatgccggc	cgtgtccaag	ggggacggga	tgcggggcct	180
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ctttggacac	atggaggctg	tgaacctgct	gagttcaaac	agatacacgg	aaaagcanat	420
cggctacctt	ttcatctctg	tgttggtgaa	ctcaaacagt	gagctgatcc	gcctgatcaa	480
caacgccatc	aanaatgacc	tggccagccg	caaccccacc	ttcatgggcc	tggccctgca	540
ctgcatcgcc	aagcgtgggc	anccgggaga	tggccgaggc	cttcgccggg	gagatcctaa	600
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<210> 4592

<211> 695

<212> DNA

<213> Homo sapiens

<400> 4592

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tgtatcttgc	acaagacttt	tttgatagat	ttatgttgac	acaaaaggat	ataaataaaa	180
atatgcttca	actcattgga	attacctcat	tattcattgc	ttccaaactt	gaggaaatct	240
atgctcctaa	actccaagag	tttgcttacg	tactgatgg	tgcttgcagt	gaagaggata	300
tcttaaggat	ggaactcatt	atattaaagg	ctttaaaatg	ggaactttgt	cctgtaacaa	360
tcattctctg	gctaaatctc	tttctccaag	ttgatgctct	taaagatgct	cctaaagttc	420
ttctacctca	gtattctcag	gaaacattca	ttcaaatagc	tcagctttta	gatctgtgta	480
ttctagccat	tgattcatta	gagttccagt	acagaatact	gactgctgct	gccttgtgcc	540
attttacctc	cattgaagtg	gttaagaaag	cctcaggttt	ggantgggac	agtatttcag	600

aatgtgtana ttggatggta ccttttgtca atgtagtaaa aagtncctagt ccagtgaagc 660
tgaagacttt taagaagant cctatggnag acagn 695

<210> 4593

<211> 677

<212> DNA

<213> Homo sapiens

<400> 4593

tcaaaagaaa agaatttaat aaattccctt tccccctgag ccagcttagg ggcaatgtcc 60
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tctctccaag ctgacacccc aaagagccaa agccttggca cctgggtccca tcaggaccgc 180
tcactgaggg gatggcatct gagtggctgc tctgcagtca tgaggctgcc atgggtggat 240
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cccgaattgg gacaaccagg aaggtctcca gacattgcct catgttcctt gggggggaaa 600
agcgcacctt ggttctgaac catctcttca nggntaaaga tttcctgaag gaancctcan 660
tccaacaagn tcagtaa 677

<210> 4594

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4594

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gccgcggttg cgacgtggtg cagcgcatac tttcacaagt gggctctccct tgtccggggac 120
 tatggccacc gactcgtggg ccctggcggt ggacgagcag gaagcggctg tcaagtcgat 180
 gaccaatttg cagatcaagg aagagaaagt caaagcagat accaatggta ttatcaaaac 240
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 cgcattaccc atgatgcttg ctgaaccccc acagaatctg attgcccagt ctgagtcctg 540
 cactggtaaa acagctgcct ttgtcttagc catgctcagc cgagtggngc catcagacag 600
 atacccccaa tgtctgtgcc tctccccaaa catatgaagc tggngcntca aacaaggaaa 660
 tnttgtttga ncaagatggg gcaa 684

<210> 4595

<211> 739

<212> DNA

<213> Homo sapiens

<400> 4595

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 gtttccattt cccatgtaat ttttaagttaa gctaaagttt taaagtggca gttttctgtc 180
 gatgactttt tcaagtgcta acactgtctc ttttgtgaaa atctggaaaa gtgctcatat 240
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 gttgaactct tgtgatttca caagattctc tacttatgtg ataggagggt atggccagtt 420
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 ggaaaggtaa cttatttctc ttctgcacag agcataatgt gaaagtttta tacctacttt 600
 taaaattctg cnttccagaa acaaaattcc tgcagtggtc taatttaagt tctttaagt 660

ticanattac aattaaaaac ctcatTTTT tttccattt ttgnacctaa cagtggtgaa 720
tactttacgt tgggnatcc 739

<210> 4596

<211> 229

<212> DNA

<213> Homo sapiens

<400> 4596

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tcccccttct ctccctggcc ctcccccttc tccccctca ccgccagcg gggcttctaa 120
ctgacagttg tcgccgggcc ccgtccgtgc accgcctcct tctgcccgtg tccccgcag 180
gtagaggggg gcgggagggg gtgtgagggg gaggagagag nnaatgana 229

<210> 4597

<211> 711

<212> DNA

<213> Homo sapiens

<400> 4597

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agcgcggccg gcatggcggc gacaaggagc cccacgcggg caaggagcg ggagcggctt 120
ggcgctcccg ccgcaggaag tgaccaagtt cactcctgga tgctagctac aagccaagcc 180
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gcttatgagg agctatTTT gcggcatcac attaaatgtg ttcgacaagt aaggagagat 480
aactatgatg ctctcagatc agtggttattt cagatattca gccagggcat ctcttttcca 540

tcatggatga aagaaaagga cattgttaag cttcctgaaa aactgctgtt ttcacaaggt 600
 tgtaattgga ttcagcagta cagttttggn cctganaagt atacaaggct ccaatgttgt 660
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<210> 4598

<211> 758

<212> DNA

<213> Homo sapiens

<400> 4598

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 ttctgttgaa tgttgttcat ataactatat ctgttgcat aggagatggc ctgcttgcaa 180
 ccagatttga ctgctgcata tgccaacctc gttgcctctc ttcgtccttc cttacagaaa 240
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 tcacaaattt aatggcttgt tcaactgtaa attattcagt atttcctctt ttctgtatgt 360
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 cttgtactat acatctccca aagaaaccca tggatgcata gctttgggca gcttttgagg 480
 aacagcaggg taatattaat gaagccagga atatcttgaa aacatttgaa gaatgtgttc 540
 taggattggc aatggttcgt ttacgaagag taagtttaga acgacggcat ggaaatctgg 600
 aagaagctga acatttgctt caggatgccca ttaagaatgc caaatcaa atgaatcct 660
 cattttatgc tgtcaaaact agcccgnat cttttcaaaa tacaagaaaa aaccttccaa 720
 aatcaangaa anggggcttt tgggaagcaa tcccaaag 758

<210> 4599

<211> 818

<212> DNA

<213> Homo sapiens

<400> 4599

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gatgcaccac taaccaccat ggaaacaagg aaaaataaag ccagctcaca gggctctctct   120
tactggatt gagagcctca gcctgccgac tgagaaaaag agttccagga aaaagaagga   180
atccccggctg cagcctcctg ccttccttta ttttttaaaa tagagagata agattgcgtg   240
catgtgtgca tatctatagt atatattttg tacactttgt tacacagaca cacaaatgca   300
cctatttata ccgggcaaga acacaaccat gtgattatct caaccaagga actgaggaat   360
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catcatgctg ctattcctgc aaatactgaa gaagcatggg atttaaatat ttactttcta   660
aataaatgaa ttactcaatc tcctatgacc atctatacat actccacctt caaaaaagta   720
catcaattat tatatcatta agggaatag tancttctcn tctccaaata tgcattgacat   780
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<210> 4600

<211> 743

<212> DNA

<213> Homo sapiens

<400> 4600

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gtctttgact tcaggccctc cctggaattt ttcttggag ccccatcagt ctttctctct   180
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atccgagatc taagtggcaa tctttgggag cgttccagtg gggatggaga agaactagaa   300
agacttacca aaccaagag tgatgagtc gatgaagata ctttctaact ggtaccaca   360
tagtttgag ctctcttgaa ccttattttc acattttcag tgtttgtaat atttatcttt   420

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tcactttgat aaaccagaaa tgtttctaaa tcctaataatt ctttgcatat atctagctac 480
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 gatacaggag taacaatatg aagaattcat taatatctca gtacttgata aatcagaaag 600
 ttatatgtgc agattatfff ccttgggctt caagcttcca aaaaacttgt aataatcatg 660
 ttagctatag cttgtatata cacatagaga tcaatttgcc aaatattcac aatcatgtag 720
 ntcnagttta catgncaaaa gtc 743

<210> 4601

<211> 785

<212> DNA

<213> Homo sapiens

<400> 4601

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 caacctgaaa aggacttctg taacgataag agttatattt cagaagagac aagagtactt 180
 ctgttaacag gaaagccaaa gcctgctgga gtactaggtg cagtaaataa gcctttatca 240
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 gcagaaactg gagttagtga aaatgaagag aaccctgtga ggattatttc agtcacacct 420
 gtaaagaata ttgaccaggt aaagaataag gaaattaatt ctgatcaggc taccaggggc 480
 aacatcagca gtgaccgagg aaagaaaaga acagtaacag cagctgggtg agagaatatc 540
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 aaacctatta acaagggaag gaagagagct gcagtggggg caggagagcc ctggggggtt 720
 ggaagcaggt atgccaaagc accaaactgc aagatttanc aaaanggagc acacagaagn 780
 caatt 785

<210> 4602

<211> 656

<212> DNA

<213> Homo sapiens

<400> 4602

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cactgacagg caattttcta ggactaaaga ggaaaagata gcattgcatc ctgcgcatctg 120
cagtgcatta caggggtgca tttagacatt ctttctccca gtagattgtg agctccgtga 180
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cttcctagt cttgggctca gtttacctac tgtaaatttt taaatgattg ggttaagtgg 600
ncctaactct taacttaaga gncttacctg cacttctgtt gtgtganttt ttgagg 656
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<210> 4603

<211> 810

<212> DNA

<213> Homo sapiens

<400> 4603

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aaaattgtgt tgatgctgtt tactcaccta attacatagt tttaatcatt tgtacataat 120
tttaaaaact tactttgtat tgattttgaa tacagtga aaatctattgc aataaactat 180
tttagtaaaa tattattttg ttgagttaat atttttcagc tattaattta cttatcccat 240
agcatttttg ttattatttc ggaagagaga gcatgctagt ttaagtttca ttttaattgg 300
tcgtgtactt ggtgcttttt tgttgttggt aacttgttca ttttagtaaaa agcaaatagc 360
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tttactttct gaaaaagaaa taattcatta tctctagtaa tacatctgta attcttcatt 420
 tagaagggtta attagggcaa aagtaaataa atcattatat atcattagta tgttgacata 480
 tattttcagt aacattgttt tatgttcctc cagcgtaaca tgtagctgaa cagtagaagg 540
 tagaaaataa attatgacat ctcttctaag gcctggctag gcctgaagct cactgccagg 600
 gagtttgtgt ctagaatgtt tttaaaaata ggtagtggag ccatagccct caccatagac 660
 acctctgagc ccactggcan tgtctctgag cagaagatgg ctgtgccact cacatatgct 720
 aatcctgggn aatctgccaa gcatgtcntc acaagggata gggatttggc ttaataaaac 780
 ctgatttgna aacaaaatcc tgagaatggg 810

<210> 4604

<211> 718

<212> DNA

<213> Homo sapiens

<400> 4604

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 tcgcacctgt ctgaagcagt gatcttagcc agaacttaga tttcctgatt ctggtccagt 180
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 ntgggataat gagactgaaa attaatgggn tcctctgctg gggttcccgt ccggtttttt 660
 ttttttttcc tccccaagna gggttgggaa tttccggcaa ctttaacca ncctggaa 718

<210> 4605

<211> 733

<212> DNA

<213> Homo sapiens

<400> 4605

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gacagactga cgtgtgagct gcatcgcggg aggcgcatgg cgggatggc gctggcgagg 60
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ctggagccct gggagcggac ggtgttcaat tccatgctgg tttccattgt ggggatggca 180
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atcggacaat gaccaagatg cgaccaggat cagaggttcc ttggggaaga cccaccctac 300
gaagttagaa tgagaccatc agatgtgata agaaactctt ctagatgtca acataaccaa 360
ccttataaag actaaaattc atgagtagaa caggaaaatc atcctgactc atgtgttgtg 420
ttctttatct ttaattttca aagaggctct tgtatagcag tttttgtcta ttttaacatt 480
gtagtcatct gtactttgat atcagtatct tcttaacctt tgtgactgtt tcaatattac 540
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aactcaaaat cattagttgg gctttactgg tcctgctatt gtatggcata atacatcctg 660
cctgggntaa atttccnact ccttggacca aaaggttttg gtaaaaggaa ccaaatnata 720
aggattttcg ggg 733

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<210> 4606

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4606

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ttgcataaaa tggtaagaa aatgtgccaa ngattacctc agtagttctg gtctgtgttc 60
ccaggagacc ctggaaataa acaatgataa ggttgctgag tcattaggaa tcacagaatt 120
cctacggaag aaagaaatac acccagacaa ccttggaccc aagcacctca gccgagacat 180
ggatggggag cagctagagg gagctagcag cgagaagagg gaacgtgagg ctgcggagga 240

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 ggtttctggt ggcaatggga gcgtgttcca ggcggggccc cagcttcagg cactggctaa 480
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 tcctggagag aatgctttgg aacactcctc agaccaggac acctgggaca acctgaggag 660
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<210> 4607

<211> 561

<212> DNA

<213> Homo sapiens

<400> 4607

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 agtacatttt tttttctctg taattgttta ggaagcagtg cttcctgaaa gaccaaacca 180
 agatttttgc attatgtggc ttgacacact agatgagcat ttaataagtt caagcttaat 240
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<210> 4608

<211> 722

<212> DNA

<213> Homo sapiens

<400> 4608

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gtcatactgt gtagaaattt cnattttctt tttccccatt anaagaggac caacaattc 600
tttatacaaa tggagtaagc aactagtttt gtagcactac atttaatggt aatgagatac 660
ctttgttcat ttttttaa at ttgnaatan actttacctg atccacttg atggtanacc 720
aa 722

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<210> 4609

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4609

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tgaaatctga tctgaataat ttgatggagc ttcttgaggc agaaaaagaa cgcaataaca 300

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aattatcatt acagtttgaa gaagataaag aaaacagttc taagccctgg tatacagtgg 360
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 agtgatcagt tccctggaaa agtctaagag atctgataag aaagttgtag cctgaccctc 720
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<210> 4610

<211> 713

<212> DNA

<213> Homo sapiens

<400> 4610

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 ttgaaaatgt cggacctcag gaacaaagtt ttgaaaaaac cattctgaaa acaattctct 180
 ggtgaaccaa acatctttac tgggtttata tatcacaggc aatgtacttg tgtcctcttt 240
 cacacttttg ggcagttttg attttccaat aatgattgac tttaatttat gagttccgtc 300
 tgcatttgca cataaaaagg cagacaacct ttctttgttt attttcttcc ctggtaggca 360
 gatatctttc ctacttgcct gagaattttc tggcattgac ttccaaaaga ggtctgtttc 420
 atccccactg tatagctgag ctagacacag tttctcctct ttgattatca tggacagttt 480
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 tctgttcgcc caaaacaccg tgcaaattctc tctgcagcaa nctgaagctc cacgcctctt 660
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<210> 4611

<211> 737

<212> DNA

<213> Homo sapiens

<400> 4611

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ctaaaatgga ctggtcttgg gtgtgtaacc ccggtgaagt tatagcctcc ccaaattgag  180
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cccaccacat ttcatangag atgagttagg anatgacagc taactctctt aaggacattt  600
tgaccccagt ttatgttggg gatggccata aaggaaaatg tctanagata ggaaggtaaa  660
tcaantctgc caaccctac catcaggtct ggggccaccc caaacitttg gctgcctccc  720
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<210> 4612

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4612

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ggtttctctg tttgaagggc tttaaactta taacaaagaa aataaaaatg acgacttcgt  180

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 agaagtcaaa gcaactggtg gctctcctca aggacgagga acggttgaag gctgagaggg 600
 cccaagctct caaaacaaa gagcgcatgg gccaaagttc cactgggcat gggcagcaac 660
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<210> 4613

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4613

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 atatattggt tcttgctaac ttgatctata atttcaatgc aatcccaatg gtataagttg 180
 gatgtttgtc tcctttaaat ctcatgctaa aatactattc ccagtgttgg aggtggggcc 240
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 tttctgcata ttgccaaact gattctaaaa tttatatgga gaggcaagag acaggatagc 660
 caacacaata ttgaaggag ggagaacata gttggaanac tgacattacc caacttcaag 720
 nactaattat taaagctaca ctaaatacaag acagntatgg tattggtgaa a 771

<210> 4614

<211> 549

<212> DNA

<213> Homo sapiens

<400> 4614

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ggccggggcta ggcccgtacg gcgcgggggaa ggcagtctgg aaaaggcgcc cgcggcagcg 180
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gcgcgcccga tgcacgcgcg gcaagggcct gctctcagag gcggcgggcc cagaggccgg 360
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gcttgccgtc agctgcggca tcttccgcac cgagtccggg gcttgccgcc ggctccttct 480
tgtccccggg cggtcgcgga gccgtgggtg caggctggnc ggtgcaaanc gtgtggccaa 540
nctgtcacc 549
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<210> 4615

<211> 732

<212> DNA

<213> Homo sapiens

<400> 4615

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gatcccagga agggcacacc ctttcctcac caccgagtg agcgctgccc cctcacagag 180
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 tgggtgctgga acagtccctg agcgcgctgc ccgccgacac gcaggcctgg gtgtgcagcc 480
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 aggggnccgg cgcctggggg aatcccaagg ctgtgcgccc ctacaagcaa ggagncccaa 720
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<210> 4616

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4616

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 cacagagcag gattaagcta tgaagccagt catgttgtat caccagaaca aatagccaca 240
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 aaagctatag agaagtctga aaccacttct gaacacactt gtcagctctg tgggtggttg 360
 tttgatacta aaattggatt atcaaatacat gtttagaggcc acttgaaaag acttgaaaag 420
 acgaaatggg atgctcacia atctccaatc tgtgttctga atgagatgat gcaaaatgaa 480
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 agcataccgt aatgggctaa agactgaagc tctgtcagtg tccgcatcag aaagaaagaa 660
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 agaatacgtc nccttaaact catngaac 748

<210> 4617

<211> 788

<212> DNA

<213> Homo sapiens

<400> 4617

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tcaaaatgtt ggtggtgcaa ggagctcaaa ttccatgggn ggncaacca aagatttncc 780
aaattatt 788
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<210> 4618

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4618

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catgctggca aggagctggg gttatgaagg gaaagagcag ggcacaaggc aagtagggct 120
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cgtgactttt cccctttcat tatgtgtgtc caccgagctg tcctgcttct gttttgtaat 180
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<210> 4619

<211> 615

<212> DNA

<213> Homo sapiens

<400> 4619

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 gagcggaggg gagactgacc ggagcgcgga tcgggacagc ggccgggaca gcggcgagac 180
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 ggaggagctg canaagcaga agtcggagct ggagcgcgan gtggacaagc tggcgcgca 540
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<210> 4620

<211> 559

<212> DNA

<213> Homo sapiens

<400> 4620

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gtggacgtgg tgccggaggg gaagaaaata aagaaaacga acgcccttcg gccggatcga 180
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<210> 4621

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4621

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 gcgttccatt ccgcttgacg gaaaaaacgg ttttctctt tgctgatgtc agtcgcattg 480
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<210> 4622

<211> 670

<212> DNA

<213> Homo sapiens

<400> 4622

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 cttgctatta 670

<210> 4623

<211> 638

<212> DNA

<213> Homo sapiens

<400> 4623

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gcaataatga ttcatttcta ctacattttg caaaagtgtt tttgttgctt atacacattt  180
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<210> 4624

<211> 642

<212> DNA

<213> Homo sapiens

<400> 4624

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aactggaaaa ggactaccag cctgggatca cttatattgt ggtgcagaaa cgccatcaca  180
cccgcctttt ctgtgctgac aagaatgagc gaattgggaa gagtggtaac atcccagctg  240
ggaccacagt ggacaccaac atcaccacc catttgagtt tgacttctat ctgtgcagcc  300
acgcaggcat ccagggcacc agccgaccat cccattacta tgttctttgg gatgacaacc  360

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gtttcacagc agatgagctc cagatcctga cgtaccagct gtgccacact tacgtacggg 420
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aagagcaatg ggcgggaccc ccaggccctg gccaaagccg tgcaagttca ccaaggatac 600
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<210> 4625

<211> 809

<212> DNA

<213> Homo sapiens

<400> 4625

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ttttgtanga actgtggctt tcccattgt gaagcattga ntatcacaat tttgggacat 780
gttaataggg gggagtcccc nggatcttt 809

<210> 4626

<211> 607

<212> DNA

<213> Homo sapiens

<400> 4626

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tcggccttac aggtatttga cacctgtgtt gttggnccat ccacagctct attancagca 540
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cctttta 607

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<210> 4627

<211> 829

<212> DNA

<213> Homo sapiens

<400> 4627

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aacaggagaa catacttcaa gaacgtgtta attccttaga caaagaggaa cagtacatgc 180
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aatttgcaaa cttcctcatg aaggctcctaa agaagaggat taaacgggta aagaaaaaag 360
aagttgaagg agatgctgat gaagatgagg agagttagga atcaagtga gaagaatcta 420

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 cgctcaagct ccaccaagat agagtatgtg ggaatttgn gaaataccta gcgatctttc 780
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<210> 4628

<211> 838

<212> DNA

<213> Homo sapiens

<400> 4628

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 caagcgattc tccgcctcag cctcctcaag tggctaggac cacaaggcaa ccacgcacta 780
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<210> 4629

<211> 782

<212> DNA

<213> Homo sapiens

<400> 4629

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gtgcggaagg tggggggcgg cggcactgcc ggcggggacc gctgggaagg cgaggacgag 180
gacgaggacg tcaaggataa ctgggatgac gatgatgatg aaaaaaagag gaagcagaag 240
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aagagtcaga cctcgaatta gcaaaggaaa cttttggtgt taataatgca gtttatggaa 480
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tgctttgcag tgaaaaacag aagcaagaaa agcaaagcaa agccaaaaag aagaagaaan 720
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gg 782

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<210> 4630

<211> 791

<212> DNA

<213> Homo sapiens

<400> 4630

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accataaagt ccagtgaaaa tacaagaata caatgctgca ttacagaact ccaaactctga 180
aagtacctcc ctttatcatt cagttctcag atcaaaggtc atttctttta aggtaatattt 240
ctgagttccc tagctaaaa atcacatcac taaccaattc agttcactct attttctgta 300
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gaaaccatag aatcaaaata gcttgatttc tagctttgtt gtttcatagt ctaactttag 540
acaaattatg ttctctgagc ttcattatct gctctgtaaa atatcttaag gcttgattga 600
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caataaaata tgtattttta gatgggatac cgcaattaat caagggaagt ctgtttacaa 720
agaaagnaaa tcaacggggg aaaccgggtg tccaaggcct ataatcccaa gcantttggg 780
gagggcanag g 791

<210> 4631

<211> 713

<212> DNA

<213> Homo sapiens

<400> 4631

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taaatcaaga caaaagcaac acagataaat gggaaaaaga tgaaatgaca aaagactgca 180
tgctggcgaa tggcaaactg gatgaggatt acgaggagga ggatgaggag gaggagagcc 240
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aggaacacat cagatttata gataatatgt taatggggtc aggagctttt gtaaagaaaa 360
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cctccttagg tagtatgcca ttttcatcaa gattttgagg attttgacta cagctcttgg 480
gatgcaatgt gctatctgga tcctagcaaa gctgttgaag aagatgactt tgtgggtggg 540
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cgacttgcac actgagcagt gtattgctga caaaagcata acggactgtg tggaaccct 660
gctgggctgc tatttaacca nctgttggga aaangggctg ctcanctttt ccc 713

<210> 4632

<211> 667

<212> DNA

<213> Homo sapiens

<400> 4632

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gtgggtgaac actgtgtatg tgaaaacact attatcttat gtagtcacaa gttagtcaat 180
gtcaacacac acatttcaca ttccattctt gtatgtacgt acttaaatac ctgaggtaag 240
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ggcttgtacc ttatgtagaa aaattgtgaa agagaaatag aatatacctc tgaagtttta 420
tgtatcttgg agtaactttg tttcacagtt aactcttggt tgaaagtatg agtggttaaaa 480
atggggaaaa aattccacaa aatccttgga ttgagagcca gaaaaatgct tccatttaaa 540
aatgttggtt gacagacaaa aaaaaaata ggtttttccc catgtccaag tttaacacca 600
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gggttgc 667

<210> 4633

<211> 643

<212> DNA

<213> Homo sapiens

<400> 4633

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aagatcctgt tgtttttcat ttactataag tcctaagtca aatatgcctc acaccaagca 180
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<210> 4634

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4634

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<210> 4635

<211> 832

<212> DNA

<213> Homo sapiens

<400> 4635

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aagggcgatg acgatgtttt tgtgaacacc atcacatcct ggaattactt tgaatagttt 720
tatccaagac caaagccaaa agattttctt aaangttgat gtgatccaca atgctgggac 780
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<210> 4636

<211> 784

<212> DNA

<213> Homo sapiens

<400> 4636

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<210> 4637

<211> 665

<212> DNA

<213> Homo sapiens

<400> 4637

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cttctatggg gaaatcctca ntgtggccat ttgttgggct acctgagacc aagaaaagan 660
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<210> 4638

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4638

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cactcacgtt agggctccag gggcctgcaa tacagcggtc gagagacaaa tatnaccag 660
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<210> 4639

<211> 543

<212> DNA

<213> Homo sapiens

<400> 4639

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 ann 543

<210> 4640

<211> 847

<212> DNA

<213> Homo sapiens

<400> 4640

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gtttcagaat taaaaataag cattatttca tatgggccaac tcagattcgt tacataggcn 780
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<210> 4641

<211> 855

<212> DNA

<213> Homo sapiens

<400> 4641

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ggactggagg aagtacagaa tataaatcgt agaaattccc cttatagtca gaccatgaaa 660
tcaagtgcac gcaaaatata ggtttcttgt tcaacaata cacacctagt ttcagagaat 720
aaangaacag actacacatc ctgaactttt tgcagggaac aaggacccaa anactttgca 780
tcacatgcaa tattttccaa aattaatggt gattccaaaa gcaaggattt ttccttcaca 840
ngggggcttt tcaag 855

<210> 4642

<211> 714

<212> DNA

<213> Homo sapiens

<400> 4642

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tantttcagc ttctcgggaa gccaaagcaa aggatctctt gagcctcagt atctgaggtc 540
agcctgggca acctggcaaa atacctcatc tcataataag taacaacaat aataataang 600
ttagctgtta ngggctgtta ttggttactt atcccaagtc acagtcttct tatttaattt 660
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<210> 4643

<211> 715

<212> DNA

<213> Homo sapiens

<400> 4643

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gccttaaaat ggaattgaaa aactctttat ttcccttat catttattgg atgggtgggt 180
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agcgtaaaat ggtgaagaac tagcatatag ccattgatca taaactgact atcataaaat 300
caaaacaagt gaaataacaa aatggacatg gtggctttgt ttaggtagag ccacaaaaga 360
aaagacttgt aatattttta tatacagagg aaatctgtaa caggtatttt gtttctttta 420
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aagcaagcaa cacagaggaa tttatacctc aaactatctg gccatattta ctaccttata 480
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 atttttgaaa aaagtacata tttattttcn tttgaattgt ttttantgtt ttctatttat 660
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<210> 4644

<211> 618

<212> DNA

<213> Homo sapiens

<400> 4644

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 tgaagttaga ttccaacca ttcaaaatgt tggcagctga tcacatttac ttctgataaa 180
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 ttcaaaagtc tcaaaacagt tgtagattaa aactgttagt tacctttcac atttccaaac 480
 tatgtgcata aaatagaata aatgcagtat agaactatgc taaccaaaat taatangtta 540
 aggggtattt tattttaaat cctgtagtaa ttggggaaat tgagaagatt ataattttan 600
 acatgngttc attaagat 618

<210> 4645

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4645

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ttttctcttt gcataaattt tggctccatt ctttccataa caatctaatac aaaactggga 60
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aacttgagat cttttggcct atgataatac cattaatttt tgcattgctt cagtttgcca 180
agtgttttta catcatctca tttgatctca aaacagcttg acagagcaac tgttattgaa 240
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accatctatg ttgatttgct tttgtctatt tcctcattaa ttgaatatac tttaaataa 420
tatattaaag tatcaaaata tagagagaca ttigaactgt attcaggtaa tatgtttaaa 480
gatatttata tattgccata caaaaactta acatttaaaa ctgataatat ctgtaatgac 540
atcagaatga aagaaaaaaa attgtacagt gtatattcct ttgttttgaa tccaaatctt 600
tttcataagg taatgacaga tgccttaatg tgaagcttat ttataatagc aataaaccta 660
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<210> 4646

<211> 610

<212> DNA

<213> Homo sapiens

<400> 4646

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gggtccaacc actctccagc agggagacct ggggggtgaag gggtgagccc tgcgcaggtc 180
tctgttcctt ggtcttcact gggcagtgtg gagaggtgtg gccaggagga gcccgcgttt 240
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cctgggcccg gaacgacacc aaatgaggga catggaaagg ggtgagaagc ataaatgtgc 360
gtgtgtttct gcagaggagg gggcatgggc ccctgccggg ctgctgcaggg gaggggtggg 420
tgggactttt ccagagaggg agccaggcct ggcccgggcc ccgggagctc acgtcacccc 480

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cacccctcac ttctccaggg aactgccaaa gccaaaccca gctcgggatg ggattatgtg 540
 tactgggtag acccgtggag aggggctgcg anaaagagat ctcggtgggc agaganaanc 600
 aaaggcagaa 610

<210> 4647

<211> 705

<212> DNA

<213> Homo sapiens

<400> 4647

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 aagagagtac acaaacaaat ggaaaaacat tccatgctca tggataggaa aaatcaatat 180
 catgaaaatg gccatactgc ccaaagtat ttatagattc aatgctatcc ccatcaagcc 240
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 aagagtccaa atagccaaga caatcctaag caaaaggaac aaaactggag gcatcatgct 360
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 aaacagatat atagaccaat ggaacagaac agatgcatca gaaataatgc tgcacatcca 480
 caaccatctg atctttgata aatctgacaa aaacaagaaa tggggaaagg attccctatt 540
 taataaatgg tgttgggaaa actggctagc catatgcaga aaactgaaac tggaccctt 600
 tcctacaact tatacaaaaa ttaactcaag atgggttaaa gacntaaatt taagactaaa 660
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<210> 4648

<211> 631

<212> DNA

<213> Homo sapiens

<400> 4648

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 cgagacagcg gaacctgcgg cccggggcgg ccgtcagata taaagtcag aagaactggg 180
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 ttacagaaag aaagaagcgt agaaaagggc ttgtgcctgg ccttggttaat ttagggaaca 300
 cctgcttcat gaactccctg ctacaaggcc tgtctgcctg tcctgctttc atcaggtggc 360
 tggaagagtt cacctcccag tactccaggg atcagaagga gccccctca caccagtatt 420
 taticttaac actcttgac cttctgaaag ccttgctcctg ccaagaagtt actgatgatg 480
 aggtcttaga tgcaagctgc ttgttggatg tcttaagaat gtacagatgg caaatctcaa 540
 cattttgaag aacaagatgc tcacgaatta ttccatgtca ttacctctc attgggaaat 600
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<210> 4649

<211> 877

<212> DNA

<213> Homo sapiens

<400> 4649

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 catcagtgtt tctgtgagca ttcttaaagc ttcttttttag ccacaagaaa taactgaaag 180
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 atcttgaatt gtttcacaaa attgactagg acataatgct aaaaattcag actgttttag 360
 aatcttgtgt tcatatgagt taaagaaaaa ttcaaatagt aactgtcttt gaatacataa 420
 gggaaatttt acaataaaaa ttttcaaaat tattattcaa gatttatact tagatatatt 480
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acaacagtga agagcttta tttttaagt tttggggaaa tagcttgtga gaggggaagaa 720
 nggattgcaa agtttttcca aaatatttta tgaagttagt gaagtcagtt gaaaggtgta 780
 tttaaacata tgaaggata cagttacatt tttttaatga gaggaacaa ttgccgtagt 840
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<210> 4650

<211> 687

<212> DNA

<213> Homo sapiens

<400> 4650

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 tcatgaacac tattttaagc atcaaatgca atcatctaaa atataaaggt caatcattta 120
 taatagaaac accttgacca caagcccttg attgaacatt ttataatatt tcatctactt 180
 attaaaacaa ataatttccc ttgggttgga ggggaagtga tttcataaat taattagaaa 240
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 aaagctaaag ctgccaaatt tctgttgaac tcttaaaaac agctcatgtt tgtttgtcct 480
 ctcggttgtt ggcctagcct atttgcaatg taatgaagct gcanggttct tgtatagcta 540
 aagcgttcaa tgcatttcac gtgctgtggt ggatgtgggg tgctgtagac agggcttcct 600
 ctcttccctg ctctcaaaat ancctccggc tttgacaatt tgggncaaga ttcttggtca 660
 attgggttta aagcctggaa gcaaaan 687

<210> 4651

<211> 606

<212> DNA

<213> Homo sapiens

<400> 4651

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actgtgctgg ggtcgcacag ccggccgaga cagtgcggg acggggagcc aggcttccga 180
gtgcgcccgg tcaactgactc ctccgcgctt tcctcgtgcg cctgcagccc ttggttcttg 240
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ggtcctctga aagaattcaa gatattccgt gctgaaatga ntaacaacaa tgtgattgtg 540
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<210> 4652

<211> 675

<212> DNA

<213> Homo sapiens

<400> 4652

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ttttccacag agccaggggc aggaccctgg acgcgtttcc cgcagaaaag gaaagcgaat 180
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acattggcaa cccccccacg ggcgagaccg tcgaggagtt ctgccggact tggggagatg 540
actacttcag cttctgggtc cgggggcgtc ctgttcttgg tcctcaactc ccagttctac 600

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gagaacccct ccaaatgccc cagnctgaag caagctcaag accaatggct ggacgagcaa 660
ctgagcatcn cnagg 675

<210> 4653

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4653

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gaaaattgtg atatcaatag cattgtaact cagaatgggtg aagtatgctg gaaaacaatc 180
acagactgtg tgagctacac agagtcagag caggggtctgg attactgggg aagcgtgagg 240
ctgctgggcc ctgtgtgtga ggctgtccat tcacatttct tatctctgac caaggggcaa 300
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atgaacgtgc taaaagtctt cgttggctct ccgtgtggtc tcaacctgcg taacgtctta 600
tggcatgggt ttgcgtcacc tgaagaaaat tcctccaaaa tactgttcaa tgatgatact 660
gttgacngca nggattgggt cagttactga agagttacct tcaaaacact aaaacttaca 720
ttgggcacat cgctccttca natic 744

<210> 4654

<211> 581

<212> DNA

<213> Homo sapiens

<400> 4654

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 ttgcccattt atttctatga aagtagacta aatactccac ttatttcata gcacattcaa 180
 aggagaagcc taagttttat gagcatcttt cactgtttcc ccaggtttcc acatacaaga 240
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 cagggttgac taatgattca ttcactgctg gaagtcattc acagacaccc tttcctccaa 360
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<210> 4655

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4655

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<210> 4656

<211> 667

<212> DNA

<213> Homo sapiens

<400> 4656

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tgtcactttc cggtgagaca agtggagcag ggcctttgat cactgnggtc acaanacctg  600
gtactggggt tttgcccttg tgtgctcaaa catttctaaa ggtgtcccca aagcccctgg  660
nggaaaaa                                     667

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<210> 4657

<211> 659

<212> DNA

<213> Homo sapiens

<400> 4657

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tgaaggtagg acattctctt ctatcaatgt acacataaag gttttgtttt gctttgcttg  180

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ttgtgaatta aaatggggag aaaatgatgt gttagctatt acccagtcac gtgtcttttt 240
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<210> 4658

<211> 662

<212> DNA

<213> Homo sapiens

<400> 4658

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 ctgctaccgc cctccgctt ccagacattc tcagctgtca gaaacacatg gcgtaatggg 180
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 gcactcgtga atgtacagat cccctgtctc ctgggccagc tggtagaggt cgtggccaag 600
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 ct 662

<210> 4659

<211> 660

<212> DNA

<213> Homo sapiens

<400> 4659

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gtacttagag gaagagagac cttttgcaat tgagcaagtt actggaatgc tgtagccaa  600
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<210> 4660

<211> 732

<212> DNA

<213> Homo sapiens

<400> 4660

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gaattattct acctttgtaa acaattggct aaaagaatca tctttaagaa attaagccat  120
ttacatgttt gtgtttttct atagcagagc attatatttt gcattatatg tttcaaccta  180
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aataagatgt gttcaggggc tccctgtttt taagagactc ttttaaaaaa aaaaaaacct  360

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<210> 4661

<211> 735

<212> DNA

<213> Homo sapiens

<400> 4661

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 atgtccntta aaana 735

<210> 4662

<211> 754

<212> DNA

<213> Homo sapiens

<400> 4662

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<210> 4663

<211> 757

<212> DNA

<213> Homo sapiens

<400> 4663

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tgtgattggg cgtggcccag agaccaagat cactgataag aaatgttctc gacagcaagt  180
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gcattgactc agtcgtaatt gggaaggacc aagaggtgaa gctgcagcct ggccaggttc 300
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 aagtgggtgt gataaaggat aaatacccaa agggccgtta ccattggctg gtcctaccgt 660
 ggacctccat ttccagtccg aaggctgtgg gcaaggaaca cntngaact ccttaagcat 720
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<210> 4664

<211> 727

<212> DNA

<213> Homo sapiens

<400> 4664

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<210> 4665

<211> 789

<212> DNA

<213> Homo sapiens

<400> 4665

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<210> 4666

<211> 776

<212> DNA

<213> Homo sapiens

<400> 4666

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<210> 4667

<211> 675

<212> DNA

<213> Homo sapiens

<400> 4667

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 ccggcacggg ggcagcgtgc agccctgccc tgtcaggctg tcagacaagc cccggggggc 180
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cccatgtagt gcgccgtgtc ctgagagaag tgccctccct acnangaggg aagaacangc 660
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<210> 4668

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4668

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<210> 4669

<211> 769

<212> DNA

<213> Homo sapiens

<400> 4669

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atacactatg taaatatagt tcattaaatc attccttgggt gtttgaagac tttctaattc 180
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 agattaacat tttagtcagt ggactgggaa aagnacaccc aacctcaatc cgggggtgggc 720
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<210> 4670

<211> 688

<212> DNA

<213> Homo sapiens

<400> 4670

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 aaaaccaaga ttgactggg acatcccatg ttaacaagat attcaagaca aagctggtgt 660

ttgaangggg attttganc cntgcgaa

688

<210> 4671

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4671

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<210> 4672

<211> 681

<212> DNA

<213> Homo sapiens

<400> 4672

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 ganacccatc actgggcatg attaccagta tnggataatt gcccaagcct gtgatcccga 660
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<210> 4673

<211> 774

<212> DNA

<213> Homo sapiens

<400> 4673

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<210> 4674

<211> 726

<212> DNA

<213> Homo sapiens

<400> 4674

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<210> 4675

<211> 793

<212> DNA

<213> Homo sapiens

<400> 4675

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<210> 4676

<211> 547

<212> DNA

<213> Homo sapiens

<400> 4676

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<210> 4677

<211> 688

<212> DNA

<213> Homo sapiens

<400> 4677

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ttgactctcc aagacanaag gggagctc 688

<210> 4678

<211> 779

<212> DNA

<213> Homo sapiens

<400> 4678

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 ggatgcttcc gatgccaaag ccagggancc ggggaagggc atgcctctgc ccacgtcctc 660
 gaagggatgc ctcaaaaggg cccggnttcc aaccgcaaga ggccgggagc tgcccaangg 720
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<210> 4679

<211> 727

<212> DNA

<213> Homo sapiens

<400> 4679

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 tggggaatgg gtggaagagg cagaggtcag gcagagtgtt caataaagag gatcagacag 180
 gccaggtagg agaagctgat gcctagccta ggacagggca ggtagctcag caagtgtgag 240
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 gcgattggga aggtccacag caggactcca gctcatacct gggagtcagg gcaaagtcca 480
 gcctagggaa gagccccaa gagccaggct ggggtgtcagg tggggccctt gtcctgaagg 540
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gccacttctc tcttatggct ccctgtaaca atganatacg gacacctgna ggcacctggg 660
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tgactta 727

<210> 4680

<211> 721

<212> DNA

<213> Homo sapiens

<400> 4680

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acaacaatat atatagagtg atcgtctctg cttgctgagc taacaggggt gtcaagcttc 180
catttttgga tctacttcta aatacactca gaacaggaga aatttggact aattttcaaa 240
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catgtctgtt ttttaacctaa gcaacgccat tatgggcagt gggatttttg gactcgcctt 540
tgccctggca aacactggaa tcctactttt tctgggacct ttgacntcag tgacattgct 600
gtctatatat tcaataaacc tcctattgat ctgttcaaaa gaaacangct gcatggggta 660
tgaaaaagct ggggggaaca agtcttttgg caacacaagg gaaannttcg taatcctttg 720
g 721

<210> 4681

<211> 677

<212> DNA

<213> Homo sapiens

<400> 4681

tattataaaa taattgagga atgtgtttca cagatagtgc tacactgcag tggataggat	60
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gtgaacaagg cgaaagtga agaaagtga caaaaagctg cagagttttc aaagaagttc	180
gatgaagaat tcacagctcg acaggaagct caagcagagc ttcaaaaaag agatgagaaa	240
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ccaccaccac cccttggagg agttcctcct cccccaggaa taccacttaa tctaccttat	540
ggaatgaagc anaaaaaaat gtataaacct gaagtgtcca tgaagagaat caattgnca	600
aaagattgaa nccacagaat tatctgagaa ctgtttctgg gtaagagtca aaggaagaca	660
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<210> 4682

<211> 742

<212> DNA

<213> Homo sapiens

<400> 4682

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tgccccattt aggcctggct caccggagta agaaactaca acccccgaag tgccttgccg	180
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cttctccgga aggaacagat tttagctgtg gccaggcagg tagagtcaat gtgtcggctg	420
cagcagcagg catctggccg gcccccatg gacctgcagc cgcaatcctc agatgagcaa	480
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gagccacgga cgggtggtgtg gctgggctgtg ctctcgttan gctttgccct ggtgctggat 600
gccatgagaa cctgctactg gctgagggca cgctccggt gctgacacnc ctctccttg 660
acaactccgg ctgctggcgc ccagcaacaa ccttctgctg cgggctgacc gcattgangg 720
gnatcctcaa ccgcttcctg ca 742

<210> 4683

<211> 779

<212> DNA

<213> Homo sapiens

<400> 4683

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cagtttaatt cacttaatgt gatttccttt cttattgat aagcagactc cattgtagcc 180
agctgatatt tttgcatcag agatactctt gtccacca gagggggccac tgaagattta 240
gaaaagtact catgatttga gatcaagtgt atctttgcct taaaaacaga atcacagata 300
ctgtgggcat cagctattcc tatttttgtc tgttctcctt ttagtggaag aaggaattga 360
aaataatgct tgcagttcag aattttgatt taccatacta gattagctag aatcttattt 420
aataatttaa cttccttctc ctgtcatggt gcittgttat ataaaacact attacttga 480
ggcaatagtc tcccaggag acaaatagaa atatagcttg ttgaatatct ttgatttctt 540
tcctaccgtc atagtttgcc aagatttctc agcagctgag gcagcggcac tgttggtgcgg 600
taaggtgttc tgatgtata agcagacacg ttgcaacat ccatctggag gagccctggg 660
ggcaaggatg tgggttgacc acccaggcaa nggatgccct gaatganang gccaacaagc 720
ctcaacaagt cccccaagca attttcaacc atccaagccc ctccaaaaca agtctcact 779

<210> 4684

<211> 704

<212> DNA

<213> Homo sapiens

<400> 4684

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agcaatgggg ttcctgcagc tgctggtcgt agcgggtgctg gcatccgaac accgggtggc 60
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atttagatac ttcgagctca ataggccctt tccagaggaa gctattttgc atgatatttc 180
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cttttctccg actctccttt ccaattcctc ggaaacaggc actgccagtg gactgggtttt 300
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tgtccagaat atggctatcc tactctccta ctcagaaaga gatcctgtcc ctggaggctg 420
taatttggag ttcgatttag atattgatcc caacatttac ttggagtata atttctttga 480
aacgactatc aagtttgccc cagcaaacct aggctatgcg agaggcgtag atccccacc 540
atgtgacgct gggacagacc aggactccag gtggagggtg caatacgatg tctatcagta 600
ttttctgcct gagaatgact cactgaggag atgttgccgg aagcatctgc anaaggatgg 660
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<210> 4685

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4685

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aagaaatcaa aacattaaaa tatttcaagt ttgtaacag ctttgagtgt gaaaggggat 60
ctcattataa agctgtactg gatgtcttag tctgggctgc tgtaacaaaa tactataaag 120
tgggtgggtg attgataaac aatagaaact tatttctcac cattctggag actagaagtt 180
tgagatcagg gtgcccgcag gtcaggctct ggtgaggatc tgcttctggg ttgcagaatg 240
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ggagacacag acactcagtt cattgttctg gtgtgctctg accttctagg cttctctcca 480

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ttcaccttag aaccctact ctcttgctca gctccgtagt aagtttatga ccagtcaaag 540
 caattttgtg cagtgtatgc agaattttct gtgtaagctt tgcatcttt ttggagggt 600
 ttacagaaaa gggaaattac tcanaacaac ttcaatcact tgctacagtt aaaaataatt 660
 tcaccagaca tattaagaga agggtaaaaa ttagttccag aaggattttt tanattgcaa 720
 taaatcaaga ggaanaagnt ataatttcct aattttaaag ataagttttt a 771

<210> 4686

<211> 874

<212> DNA

<213> Homo sapiens

<400> 4686

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 atgccacaaa atgcactccc caataaatta agattaaagg aatgccc aaa ccccaa acat 180
 gatcattgtg atcatttctt atgaaacata agaatgagac ataagaattt tatatgagat 240
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 tgaaccagac tccccagtgc tctatagaac catgagtgaa gcagctctgg tgagaaaaag 540
 gatgaagcct ctgatgatgg acagaaanga aagacagaaa aatagagcct ctattaatgg 600
 acacttctat aacctgaag taagtgaagt acaattccat taatgtaata taaaataang 660
 ttccctgttt cactaacaat accacccaat tcaattcaca anttaaagtc ataataataa 720
 cagttncatg tccaacatct gggggcactc tccatgtgca gatattaaag taaatgggtt 780
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<210> 4687

<211> 702

<212> DNA

<213> Homo sapiens

<400> 4687

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gacttttagcc ttcccatTTT atggagtttg tcatgagtgt gatcgtatTT gctgctcgtg    60
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aatttgattt gaaaatgagt aagtgcagaa agacaccagt tcagcagcta gcaagtcccg   180
cgTcattcag cccagatatt ctTgctgaca tttttgaact ctttgccaag aacttttctt   240
atggcaagcc acttaataat gagtggcagt taccagatcc cagtgagatt tTcacctgtg   300
accacactga atttaatgca ttTcttgatt tgaagaactc cctaaatgaa gtaaaaaacc   360
tactgagtga taagaaactg gatgagtggc atgagcacac Tgctttcact aataaagcag   420
ggaaaatcat ttTctatgtt agaaaatctg tgaatgctga actttgtact caagcatggt   480
gtaagtTcca tgagattttg Tgcagctttc cacttatTcc acaggaagct ttTcagaatg   540
ggaaactgaa ttTcttacac ctttgTgaag ctccaggagc ttttaaagct agTctcaanc   600
actacttaaa atcccatcng ttTccctgtc aatgggagtt gggtaacgaa tactccgaat   660
ccataccatg aagcaaaatg acgacctcat gatgantaan gg                          702

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<210> 4688

<211> 696

<212> DNA

<213> Homo sapiens

<400> 4688

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gaaatatggg ctgcccgtgg agaagatagc aaagctttac aagaaaagca aaaaaggcat   120
ctTggtgaac atggatgaca acatcatcga gcactactcg aacgaggaca cttTcatcct   180
caacatggag agcatggtgg agggctTcaa ggtcacgctc atggaaatct agccctgggt   240
ttggcatccg cttTggctgg agctctcagt gcgtTcctcc ctgagagaga cagaagcccc   300

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agccccagaa cctggagacc catctcccc atctcacaac tgctgttaca agaccgtgct 360
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 accacggagc cgaagcctga gcccctcagg aaggtgcctt aggcctgttg gattcctatt 480
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 tagctccaga tgagaccgtc cagcgttccc cttcaagag aaacactcat ccccgaacaa 600
 cctaaaaaan tcccatccct tctttctcaa cctccatat ctatatctcc ccganttgg 660
 tggacaaaaa tgagctaacg tctgggggtg caanta 696

<210> 4689

<211> 567

<212> DNA

<213> Homo sapiens

<400> 4689

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 ccaggggccac tgctcagccc ccagcccctc tcagcccaga ctctgggtca cccagcccag 120
 attctgggtc agccagccca gtggaagaag aggacgtggg ctctcggag aagcttggca 180
 gggagacgga ggaacaggac agcgactctg cagagcaggg ggatcctgct ggtgagggga 240
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 aactgcaaag ccacctgtg accgatccag tgaaggacca caactggcga tactgccctg 420
 cccaccacag cccactgtct gccttctgct gccctgatca gcagtgcac tgccaggact 480
 gttgccaaag agcacagtgg ccacaccata gtctccctgg atgcancccg cagggacaag 540
 gaggtgaac tccantgcac ccantta 567

<210> 4690

<211> 773

<212> DNA

<213> Homo sapiens

<400> 4690

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agcagtatat taagctctgg gtcttctcat gactaaaatg actatittta aacataagac   60
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atttgttcta tacttttttt tttttttttt tttgagatgg agtcttgctc tgtcgcccag  180
gctggagtg c agtggtgcaa tcttggtc ca ctgcaagctc cgcctcctgg gttcatgcca  240
ttctcctgcc tcggccttcc aagtagctgg gactacaggt gcccgccccg acacctggct  300
aatttttaaa aaaatatttt tagtagagac agggtttcac cgtgttagcc aggatggctct  360
cgatctcctg acctcgtgat ccgcccgcct tggcctccca aagtgcctggg attacaggcg  420
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gagggcatac aatattgtat gtggtaccta aacgttgcca tttagttact cttacagaac  600
aactttcatt aactggata ttaatatataa ttacttcttg agtaatccca gaattgtaga  660
accaattggg agaatcagaa actgtccttg gacttgaggg tttcctccct taaggnaaaa  720
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<210> 4691

<211> 695

<212> DNA

<213> Homo sapiens

<400> 4691

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aagaatgtct caggaggaaa catgacagag atgtttgtcc agttaaaact gggagatcag   60
aggtataaaa gtaaggatgg gcattttgga cattgaagtg tggggaaagg acaacaaaaa  120
gcatgaggaa cgtctgggca cgtgtaaagt ggatatctcg gcactccctc tgaagcaagc  180
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tacaccctgt gcgggggtct ccgtctctga tctgtgtgtc tgccccttag cagacctcag  300
cgaaagaaag cagattacc agcgatatgg cttacagaac tccctgaaag atgtgaaaga  360
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agggaagagt gacccatttt gcttggttga gttaggcaat gaccgacttc agacgcatac 480
 cgtctacaaa aacctcaacc ctgaatggaa caaagttttt acatttccca ttaaagatat 540
 ccatgatgtt ttggaagtga cagtgtttga tgaagatgga gataaacccc cagattttct 600
 tggnaaagtt gccaatccct tgctgtccat tagagatgga caaccgaatt gttangtact 660
 aaagaataaa gatttagaac aanccttttaa aggag 695

<210> 4692

<211> 683

<212> DNA

<213> Homo sapiens

<400> 4692

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 gagcaagagc ctacttgtgc ctcccagatg gctgagccct tccgtacctt ccgagatgga 180
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 acacctacca agatactga aattacaact gaaatacatg tctaattgggt ctaattctgc 600
 taatattgtc ccggagacaa ntcctgaatc tgtgccata atctctgtca ntctgtgtt 660
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<210> 4693

<211> 604

<212> DNA

<213> Homo sapiens

<400> 4693

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accccggtag taaatcatgg ggctggagct caaccccagg gtaggctggc tccagagctg   180
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tactcctcac cagacacaac ataataggct acacactcct ctgtgctttc tggcacgttt  480
taaacattag tattattgac ctttacctat agtatancat ggnctattta tgtatccatc  540
tcccctangc atttttctc aaagacaaga accatgtctt acccatctct tgggtaagtg   600
ccta                                                                    604

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<210> 4694

<211> 727

<212> DNA

<213> Homo sapiens

<400> 4694

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ggatgttctg ataaatggag caccgcgacc tgccaatttc aaatgtaatt caggttacgt   60
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agctcttcgg cttgcaacaa ctatgacgaa tcatgaaaaa acgaacggat taacagggtc   180
attcaagagt taggtctgga taaagtggca gactccaagg ttggaactca gtttatccgt  240
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tccatcttgt tcttgatga gcctacaact ggcttagact caagcacagc aaatgctgtc  360
cttttgctcc tgaaaaggat gtctaagcag ggacgaacaa tcactctctc cattcatcag  420
cctcgatatt ccatcttcaa gttgtttgat agcctcacct tattggcctc aggaagactt  480
atgttccacg ggcctgctca ggaggccttg ggatactttg aatcagctgg ttatcactgt   540

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gaggcctata ataaccctgc agacttcttc ttggacatca ttaatggaga ttccactgc 600
gtggcattaa acagagaaga agactttaaa gagatcatag agccttccan gcaggataag 660
ccactcatag aaaaattanc ggagatttta tgtcaactcc tccttctaca nagagacaaa 720
agctgaa 727

<210> 4695

<211> 631

<212> DNA

<213> Homo sapiens

<400> 4695

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tatgtgcaca atgagctagc caacatggaa gaagatgcca gatcagctgg agtcgctacc 180
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gtggaaatta ttcattgttac atcccctatg ttggaaacaa ggagggcaga ttcattccgt 360
tatacctaaaa caggtacagc aaatcctaaa gtcactttta agatgtcaga aataatgatt 420
gatgctgaag gaaggatcat agatgtcata gataaggaac taattcaacc ttttgagatt 480
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tggatccatcc tactagatcg ctcccagact cgcctacaga tagtggtgnt ctcacctgaa 600
attattttatc ccagtagaan gatgatgttn t 631

<210> 4696

<211> 798

<212> DNA

<213> Homo sapiens

<400> 4696

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 aagaagaatc acatcacttg tgtgctggcc ctagtgagaa agtcactccc aattctgttg 720
 acatgggncc angcaagaag agcaangtca catttcttaa gcgctgggtc caagagatat 780
 gtcacaaacc ttttacia 798

<210> 4697

<211> 793

<212> DNA

<213> Homo sapiens

<400> 4697

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 aagcgagacg agaaaaata tagagggaaa aaatgaagac tagcacggaa aatgccacgg 480

ggcggctagc tgagttaatg ttagctaaac atgtatagac atagaaattt tgaattgctt 540
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 aaaaatttca tatgcaaata gctccttaca agatagcagg cangaattcc acatcttaca 720
 ctatccaacc tcagagaaac tgttcattcc attcacgttt ggtaaattggg gnaaaaaaag 780
 caacacaant tac 793

<210> 4698

<211> 827

<212> DNA

<213> Homo sapiens

<400> 4698

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 ttgagttttg agagggtttt tatatatacct agataaaatt cctctgtagg atatgtgggt 180
 gcttgaattt ttaacataac ttctaccaag gaaaaataag taaaatttcc aacccttgca 240
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 gatgtataaa atagacatcg agggccatta agagagtaaa tacttaaaaa tacatgttat 360
 gaaagcaaag ccaataatca ctgtaggagt atgagttgcc taagggccaa aactaatgta 420
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 ctctttttta ccctgctgac tattacaggg cttgtttaat cacagtggca agaattacat 600
 gtatcttaca gtaaagaaac agaatactgg aatcgtaga naaccctgat gtgttgacct 660
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 ggttaaaggt cccggctact aatgaacca aacttttttt tcccccttt tgactccttg 780
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<210> 4699

<211> 756

<212> DNA

<213> Homo sapiens

<400> 4699

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ggaaaaaact caaactctga tctaccatca ttgtttaatg ttcggcaaac atgaagcatt 180
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aacccctgcc cagagggtta ctgctaaaat gaaactcccg tgtctgtccc cttccctggc 660
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<210> 4700

<211> 781

<212> DNA

<213> Homo sapiens

<400> 4700

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atacagaaat ggaaaaccaa ataccaggtt ctacttata agggaaagtg aaacactggg 180
tatacacgga cacaagatg gaaacaataa actctgggaa ttccaaaagg ggagagatag 240

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ggggtgaggg ttgaaaaact acctattggg tactatgttc actgcttagg tgacaggatc 300
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 ccctgaatct aaaataaatt ttttcaataa agaaagaaag gttcttggag gagatagatt 420
 cgatgttaaa tcttctttca tcagcacatg tgtattgact gtcactctct accaggctgt 480
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 ctattgggga gagatagtaa ataagacgga aacaaataaa tacacagttt cagagagcaa 600
 tgagttctac aatgagcag tgagccctat aaacaaaatt tagattaaat taaattagga 660
 taggtcagcc tctttgttat agcagatgat actttttata tggnttagca aaggagtcag 720
 gaaggaagta attttaaaaa aggaaaacca gnaaaaaacc tcnttaccaa ccaactttta 780
 a 781

<210> 4701

<211> 754

<212> DNA

<213> Homo sapiens

<400> 4701

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 aactgtgtgg ttgggctcgg tagcacatcg tgggacttgg gtgtgcgccc acagatgggtt 180
 tggccctgca gtgaccagag cagcccaagc cgccaccatg gtgaaattgc tagtggccaa 240
 aatcctgtgc atggtgggcg tgttcttctt catgctgctc ggctccctgc tccccgtgaa 300
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 ggaaaaggta agggctccct gggcactagc agcagccctt ggcaccttat ggccaaggga 480
 ctctgatgca ttttcaacac tgatgccaaag ttcagtgaag gccttgatgc tgtaagggtg 540
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 gctctaccgg ccaaacaagg ggtttggacc aaactgggat tcccaacagg tggacttgct 660
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754

<210> 4702

<211> 665

<212> DNA

<213> Homo sapiens

<400> 4702

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gatgctggag attacagaga cactcaagat gcccttgctg ttgttataga ggtagccaac 180
cacgccaatg acaccatgaa gcaaggagac aactttcaga aacttatgca aattcagtac 240
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gaagcgattt ccagggaat agaagagtat gccaaagaaa gaatcacctt ctgtcctagt 600
aggagtcttg atgaggnaag actcagaaaa taaagaagaa agttagtcct cctggntnga 660
aaggt 665

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<210> 4703

<211> 789

<212> DNA

<213> Homo sapiens

<400> 4703

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agcaccaaaag ggaaaaagtg caggacggga aaaaaaagtc atccatccat atagtagaaa 180
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 aaaggccttg cgtctcaacc ttgttgggtga aaaactgcaa tggtttcaaa atcatcctga 300
 tcccccaaaa aagagatatt caaagaaaga tgcttgtgaa ctaattgaaa ggtacttaaa 360
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 gaggcggcac tggtcccgagg agaccgtcat caagcagacg atggagcggg agcgacagca 480
 gtttgaggga tatggccttg agattccaga cattctaaat gcaagtaatc tgaaaacatt 540
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 taatgatgca attcccaaga cgtgcaagag gaaaactact ataactgtag accaagattt 660
 gggggaattg gaactaaacg atgaatcaag tgattcagat tgaggaaatg actgcaatgg 720
 cctaaattgt cctcacttga attgaaaata aataatttga gagcntcaaa ttatantcat 780
 tgattangg 789

<210> 4704

<211> 693

<212> DNA

<213> Homo sapiens

<400> 4704

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 ggctggggcc ggcccaggag cttccccagg gctcccaccg tccatggcgg tgcgggggga 180
 gccgcacatc ccctgtcctt caccacgcgg agctgcccac cccctggagg gtcttgggggt 240
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 gaccgccttg cctcctacct ggagaagggt cgcgccctgg aggaggccaa catgaagctg 360
 gaaagccgca tcctgaaatg gcaccagcag agagatcctg gcagtaagaa agattattcc 420
 cagtatgagg aaaacatcac acacctgcag gagcagatag tggatggtaa gatgaccaat 480
 gctcagatta ttcttctcat tgacaatgcc aggatggcag tggatgactt caacctcaag 540
 tatgaaaatg aacactcctt taagaaagac ttggnaattg aagtcgaggg cctccgaagg 600

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aaagagctca atctcatgaa nggagcanca tga 693

<210> 4705

<211> 795

<212> DNA

<213> Homo sapiens

<400> 4705

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aatgaccata aaaagaatca gtctctaaaa atgacaactt ttaacaataa aaatatattt 480
caatcaacta tgctaacaga ggctactacc tctaacagtt ctcttgatat cagtgcata 540
aagcccaaca aggatggatt aaaaaataaa gcaaactatg aatcaccagg aaaaatattt 600
ctaagaatga aagaaaaagt actgcgtgac aagcaagaac agccatcaag aaacagtagt 660
ttgttgggan cacaagaaaa agtgggaata atgaaacctt cactcctaaa cangaggttg 720
aaaaaaaaaa attgcagcat acctaactaa tgtgaagaaa angggaaaca acaaatcaat 780
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<210> 4706

<211> 742

<212> DNA

<213> Homo sapiens

<400> 4706

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gaattataat tagaaattag aaaagtaatt gacagcaaca atggaaaaaa tatctggact 480
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gttacctgt tgagactcct gtgagagaga ggtaaagctg acacaaatgt tatctttcct 660
agcanttttc cacctgctgt angatgatca tgtgtttggg acattgnaaa atggtcatta 720
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<210> 4707

<211> 836

<212> DNA

<213> Homo sapiens

<400> 4707

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tccagcctca cttctccat ctgggaaatg ggactattga tgcagaagcc tccccaaaag 420
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accccttgat aaaggccatc aaggatggcg atgaagaggc cttgaagacc atgatcaagg 540
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 agcgcaccct gcaagaggaa acagccgttt acttggcaac gtgcaagggg caacctggac 720
 tgtctcctgt caatgctcca agcaaggggc aaaagccgga catctccaac aaatnccgag 780
 aagacaccgc tctaaaaaag cctgtgancc gcaaagaaac gcccggaagg gccntt 836

<210> 4708

<211> 462

<212> DNA

<213> Homo sapiens

<400> 4708

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 gcctcggagg ggccctcggc tgccccaccc tcggagccac tgctagaagg ggccgctccc 180
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 tggtaggggg gtcaagagtg cacaggactg gtggagcagc acagctggat ggagggtcag 360
 gtgaccgtct ggctgctgga gcanaagctg caggtctgct gcanggtgga ggagggtgtg 420
 ctggcanagc tgcaggggccc ctgtccccag gcaccaaccc tg 462

<210> 4709

<211> 788

<212> DNA

<213> Homo sapiens

<400> 4709

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agaaattatc aaacaattga agattgaact caagaaggca caggagagcc aaaaggagat 120
 gaaactattg ctggatatgt accgttctgc cccaaaggaa cagagagaca aagttcagct 180
 gatggcagct gagaagaagt ctaaggcaga gttggaagat ctaaggcaaa gactcaagga 240
 tctggaagat aaagagaaga aagagaacaa gaaaatggct gatgaggatg ccttgaggaa 300
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 gatgagat 788

<210> 4710

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4710

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 ctggcatttc tccgcactgt ggtgtcaagg aaagagcatg gctttcatgt cagacacatc 180
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aaaagccagt tatttattcg aatactataa ttttctcaaa gaatgatcac cattttaaga 600
 ttaattccaa tgttcttttt cataatctaaa taatgttggc atactactga caagagaaac 660
 aagacaaatg tgagagatgt ctgcgtttct cctattaaat aatattacaa ttggnatggt 720
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<210> 4711

<211> 685

<212> DNA

<213> Homo sapiens

<400> 4711

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 tgggtgaatat ctctgaacct gggcatgaaa cagagagatg tcctaactct gggtagagagg 180
 aatcctcatt tttctctgcc ctctcactgt ggcacccata gaaaaaagtt ttgggttcct 240
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 ccaaccaaca aacacatctc ttttttctgt ctattcactg ggaaagtaaa agcagtcctgg 540
 gcgcaggctg gggaccaga tggaattcaa acttatgcct gctctcaagg tgctcacggt 600
 tgctgataaa cagctgggnt aaaatgaaga gtctatgant gagggatgca anagccaagg 660
 gaaggctggt ggagtgattc cacca 685

<210> 4712

<211> 830

<212> DNA

<213> Homo sapiens

<400> 4712

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tgacattcag ggacgtggcc atcgaattct ctcaagatga gtggaaatgc ctgaactcta 180
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atcccatga actgcagcag tttcaagctg aagggaat ttatgaatgt aaccatgttg 600
agaagtctgt caaccatggt tcctcagttt caccaccca aatactttcc tctaccgtca 660
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gaacagaaat catgcattag gggaaaaacc ttacangtat atttgagggt cgacaaagcc 780
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<210> 4713

<211> 798

<212> DNA

<213> Homo sapiens

<400> 4713

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tcctttgtgc acagtatcac ttaaattccat caagttacac aatcgatctg ttgtcagctg 480
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<210> 4714

<211> 779

<212> DNA

<213> Homo sapiens

<400> 4714

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 gaggatcatc aggaggttct accctttata taccgggcca taggtcctaa gcctcttctt 240
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 tgggtctcagc agatcagaga gggcagacac cactttttag taggcaaaga cacttctacc 480
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 agccctggaa gattcggaaa aacttggcct ctactaactg gtgactcctc tccaaaaagg 720
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<210> 4715

<211> 711

<212> DNA

<213> Homo sapiens

<400> 4715

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gcagcttggt tcatgggcaa cgtgcangtc tctggagggg gacctagcat ctcccttggtg 600
atgaagactc ccagggtcgc caagaatgan gtgctctggc aaccaacgct gaacttgcca 660
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<210> 4716

<211> 711

<212> DNA

<213> Homo sapiens

<400> 4716

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gcctcatcga caaagtcgac aacttcaagt ccctgagcct atccaagctg gaggaccctc 180
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<210> 4717

<211> 815

<212> DNA

<213> Homo sapiens

<400> 4717

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 aacattccaa agctctgacc cagaacagat gcgacagagt ttgctgactg caatccgttc 720
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<210> 4718

<211> 846

<212> DNA

<213> Homo sapiens

<400> 4718

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tgtcacctgg gntcactgaa cctccggctc ccggggtcaa ggaatctcct gntcagcct 840
caanta                                           846
    
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<210> 4719

<211> 691

<212> DNA

<213> Homo sapiens

<400> 4719

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 caacgagaac tccccagcaa gatgctcctg gtctatgatc tctactttgt ctctaant 660
 gtgggctctg ggcaaccccc aanaanaatg g 691

<210> 4720

<211> 762

<212> DNA

<213> Homo sapiens

<400> 4720

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 aaggttacc agttggtaat tcatttgcac acctgttagc aagaaacaga agttgaagga 180
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 ttataatca ggtgaatgta gtattaaaag atgcagaagg catcttggag gacttgcagt 540
 catacagagg agctggccac gaaatacgag aggaatccag catccancag atgagaagtt 600
 gcaagagaag catggggtgc aattgttcca ctagtaggca aattaaagaa attttacgaa 660

ttttctcaan aaggttagaa agcagcattt aaggaaggtc ttctgggaag ccttaacaaa 720
gttaccctcaa tnattcctcc caancccaaa gcaatctaag aa 762

<210> 4721

<211> 750

<212> DNA

<213> Homo sapiens

<400> 4721

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gcctaggccg gggcttcaca gcgactgcgc ggacgggttc ctgagtggaa catggcgact 120
tgcgccgaaa tcctgcggag cgagttcccc gaaattgacg gacaggtctt cgactacgtg 180
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ggagagtccg ttggnatcat ctggcaagaa caaatcctat gatgtgcgaa ttgagaactt 660
tgatgtgtct tttggcgata gagtactgct ggctggaagc ngatgtnaaa cctgggattn 720
gggccgccgt ttacggggct ggttggggcg 750

<210> 4722

<211> 722

<212> DNA

<213> Homo sapiens

<400> 4722

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 tctactctcg ttatctgacc tcatggatga acttcaggat gttcagctca cagagatcaa 120
 accacttcta aatgataaga atggtacaag aaacttccag gactttgact gtcaggaaca 180
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 gcttgtggaa ggccttgtgc tcattaatgt tgacccttgc gctaaaggct ggattgactg 600
 ggcagcttcc aaactctctg gcctgacaac caatgttggg ggacattatt ttggctcadc 660
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<210> 4723

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4723

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 gggcctgtgt gtgctgaggc ggctgagcgg cggacatgca caccacagag cgtggcgatg 120
 gaacagtaac cgggcttgtg agagggctct gcagtataaa ctaggagaca agatccatgg 180
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 tccgagcgac ccccagacgc ccttggctctt taaaggagtc ctctttaatg agatnaaggg 660
 agcgtttaca gacaantgag aggatattct cccagcanct tcagaacaag actttcttcc 720
 cggaccaaaa cggt 734

<210> 4724

<211> 899

<212> DNA

<213> Homo sapiens

<400> 4724

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 aagtatggat atactcttca gaataagagg aggccttgat ttggcttttc agctagctac 120
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<210> 4725

<211> 805

<212> DNA

<213> Homo sapiens

<400> 4725

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ggaaaaactg gacattttaa aaaggaatgc caccagatct caggacagaa aggatcttac 180
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gaccacctgt gtantacaaa ttttaaggaaa gaaatttatg ggcttatggn tacgggaact 780
gaangtatca agttaatatc ctaaa 805

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<210> 4726

<211> 728

<212> DNA

<213> Homo sapiens

<400> 4726

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tgctggaaac caggcgggtt gggacagagg gcttggtgga ctccctttct cagggactgg 60
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tccaccagct cctgctcaac ccgccaaga agaaagcgtat cctgaccacc attggtgtgc 180
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 cgctggga 728

<210> 4727

<211> 814

<212> DNA

<213> Homo sapiens

<400> 4727

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 tcccagcact ttggggaagg cgaggcgggc anatnacgag gtcaggagat cgagaccaac 780

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814

<210> 4728

<211> 757

<212> DNA

<213> Homo sapiens

<400> 4728

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 tttccatgag aatatcataa actcaggga caccattctgg ccattcctga ctaaaaaact 180
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 ttttctcaa gaagcccaaa gcacatgtng antttgg 757

<210> 4729

<211> 862

<212> DNA

<213> Homo sapiens

<400> 4729

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 ttcaacgctg caccgttttc tc 862

<210> 4730

<211> 723

<212> DNA

<213> Homo sapiens

<400> 4730

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 caagacccag aacctgctat gcggaacaag ggtgatcagc aacttgtggg aatagacaaa 660
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 aca 723

<210> 4731

<211> 743

<212> DNA

<213> Homo sapiens

<400> 4731

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 aacaagctaa gacccactgg gttgaaattc tcgctgccag cacagcagtc tgatgtccac 540
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 agtttcccc tcacaagtgt aaacaaagct gctgggaagt ttgaactggg tggagcccac 660
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<210> 4732

<211> 740

<212> DNA

<213> Homo sapiens

<400> 4732

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ttgccatttc cctgtggctt tgtttacact atgaaggga aaaccacctg ctcaagcctc 660
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taanactggg tgttgctggg 740
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<210> 4733

<211> 751

<212> DNA

<213> Homo sapiens

<400> 4733

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tgtatttgtt ttgacgtag aggtttcaat tttttcacct tgggggcaaa tgaaaaactt 180
ggcatttttc atttgggaac atataatagc ttgtaaactt ttcagacagc agtaaatgtc 240
tgaaaaaata tcaaaaacag cataaagaca agattatgta gctctaatta tacgtatata 300
attataaaaa acaatgtgca agggttatat ttttaaggtct tttaaaatct gattttgatc 360
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ataccaaag acataatatt ttttatggta gccttttact ttcaagactt aattttcaga 420
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 cttttatgct aagatcttac ttttaagcttt ttatgtgaac aaaagatgta catatagtaa 540
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 ttggaaaaca gcactacgct tagttttcct gtagttcctg agtgatgtct gtgtgttcct 660
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<210> 4734

<211> 875

<212> DNA

<213> Homo sapiens

<400> 4734

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 ctacaacagc agtgctcttg ttaatacagg tctctggttt atgcagaaat ggaaaaaatc 180
 aggttcgctt ttgcagctga catgtcgaga tctctcagac cctcgccaaa cttttttata 240
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 acaggatcgc tatgttcctt atcactctgc ccgcattgaa atgtgtaaaa cagctttaaa 360
 ggacaaacag tcaggacaga tctattcaga aatgatccac aacttgcttc gacctgttct 420
 gcaaagcaag gactgtaatt tggttcgcta taatgtcatc aatgcattgc ccaatacagc 480
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 tgataagttc taagaaatat ttataccttt ttatatggaa gataatttat atcatccatg 720
 tttagtgcct tttaaacatc aactttactt tccaggtaat gtggctgtgc aataattttt 780
 taattttacc tttttacttt tccaataacn ttttcaaaaa attttggcna cctaaggtaa 840
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<210> 4735

<211> 846

<212> DNA

<213> Homo sapiens

<400> 4735

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attacctgaa gcgcattcag acaacgtggc tacctttatc atttcattca accctgagtg 180
gccccaaaca aggcctcagg ccggccactt ccttccactt cttggtctga cctctccatg 240
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gcccaggctt gctggagttg gggttatcca cagtcagagg ttcagagttg tcaaattctc 360
caattagagc aagagatgag gaaaggaaaag ggagacgaaa gaaagaggct gtgcctcaga 420
aataataacg ccgcatactt acaactatct gatctttgac aaacctgaga aaaacaagca 480
atggggaaaag gattccctat ttaataaatg gtgctgggaa aactggccaa ccaatgtaga 540
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gacttaaacg ttagacctaa aaccataacc taggcattac cattcaggac ataggcatgg 660
gcaaggactt catgtctaaa acaccaaaac caatggcaac caaaggcaaa attgacaaat 720
gggatctaataaaactaaaa gagcttctgc acagcaaaaa gaaactacca tcagnagtgg 780
acaaggcaac ctacaaaatg gggagaaaat tttcgcaacc tacnccatcn gacaaaaggg 840
ctaaat 846

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<210> 4736

<211> 890

<212> DNA

<213> Homo sapiens

<400> 4736

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 caggacaacc ggccgtcggg gcttatccgc acttacctgg ggagaagccc tctggtctcc 240
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 agccttgatg acttctacat aggaaagtat ttggaggag tgttgagta ttttatgatt 720
 caagccttaa atcagaagac aagtgaaaaa atgaagaaaa gaaaaatgag caactccttt 780
 catgggaatt agaccacctc aacttgaaca ancangaaaa aatgcctgtc ctaaaggctg 840
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<210> 4737

<211> 894

<212> DNA

<213> Homo sapiens

<400> 4737

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 tttggcttct tgggtgacat tatggaacac cticgagaac tcagtgaaga attacgagtt 240
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caaatggtga tctgtcgtct ccaaaaagaa tttgagagac attttaagga cctcaggttc 480
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 agaatacaag acttggggca gttttatgct ggattgtctg ctgaatccta cccaattatc 660
 aaaggggttg cctgtaangt ggcatccttg tttgatagta accaaatctg tgaaaaggct 720
 tttcatattt gactcgaaac caacacactt tgagtcagcc attaacagat gagcatctcc 780
 naagccctgt ttccgggttg ccacaactga aaatggagcc ccggttggga tgaccttgtg 840
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<210> 4738

<211> 743

<212> DNA

<213> Homo sapiens

<400> 4738

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 aaacatgtat taagttccta ttatgtcaga tgtgcaaatt cttatggtaa taaaaagatg 480
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 ctcttcactc cactggctgt aacacatttc tactctgaga tcttcatggc acaacttctt 660
 gaacaagtgt tttcaatagt cactcncctc anattttttc ttccanttcc tcaaacatac 720
 aggaagaaaa cggtgtggtt ggg 743

<210> 4739

<211> 805

<212> DNA

<213> Homo sapiens

<400> 4739

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agttanccca agaagattct ctctacatg ggcaattttc acaagcagtc actcccccta  720
acccatcatc acacaagatt tattcaaaag nccaaccgat tatctcaatg gngaagaaca  780
acaacttttc ccaaaaaagt ttngg                                     805

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<210> 4740

<211> 793

<212> DNA

<213> Homo sapiens

<400> 4740

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tgctccaggc tttcagtacc accctaattct acctatgcat gccgtcataa tggaaaagtc 180
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 tgggggggaan tcatagaagt aacagtttta catattgatc aagttgggat gtcctggagg 720
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<210> 4741

<211> 755

<212> DNA

<213> Homo sapiens

<400> 4741

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<210> 4742

<211> 710

<212> DNA

<213> Homo sapiens

<400> 4742

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<210> 4743

<211> 704

<212> DNA

<213> Homo sapiens

<400> 4743

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 tacnggtggg ttatgaaggg aaaagacnat ggaggggcaa cgan 704

<210> 4744

<211> 813

<212> DNA

<213> Homo sapiens

<400> 4744

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 cgcttgggaag ataatacagc catctcttct agcccatgg cagcattgca gattccagtc 180
 cagatcacc atgtttcttc agcagactct cctgctaccg ttgactcaga aacaataaca 240
 ctaaacagtg gaacactaca gacatttgag attcttcctt ctttccatct acagccact 300
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 gttcatgctt tatccccaga acatttggtg aacacaagtg ataatgttac agtgcagtgt 480
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gccctagaag cagacacttt cccagatgaa attcatcacc ctaagatgac tgtggagcca 660
 tcatttaatg atgctcatgt atccaaattc agtgaccaa atagcacaga actgatnaat 720
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<210> 4745

<211> 732

<212> DNA

<213> Homo sapiens

<400> 4745

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 gtgatcttgt tggaggcctg atgactgacg gcttgagaag actgtcagga aacgagtatg 360
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 acgtcctgca cgccaacgct ttcttccctg ggaanggaaa ggagtaaagg ggaagcctcc 720
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<210> 4746

<211> 798

<212> DNA

<213> Homo sapiens

<400> 4746

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tggtcatgt tctaaaggct gctagcagaa attgagcctg gtacatactt aaaggaaggt 180
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ccaaaggcaa ccagatattt gtcaagaaat ctaccttttt gaccttgacc ttggcaagaa 720
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aaantaaaaa aatggggg 798

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<210> 4747

<211> 635

<212> DNA

<213> Homo sapiens

<400> 4747

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ccccgcgtg ctgggcgaca gggtcgctcg cgcggcttct cttcaagctg cccccacccc 180
gaccacacca aggaagccgc cgaggccgag tcagggatgg cccccggcgg gcctggggaa 240
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aatcttctca acagtgtgat tggaagagcc ctcggcattc cacatgcaaa agacaaacta 360

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 gctgcancct gccagctggt caagggttgg ggtctgctag gtccccggaa tgagttgttt 540
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 cgtccggaac ccatnatgcc cctacttcct ggcgg 635

<210> 4748

<211> 849

<212> DNA

<213> Homo sapiens

<400> 4748

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<210> 4749

<211> 787

<212> DNA

<213> Homo sapiens

<400> 4749

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acgtattgat tatagcagta ctatagttat tctgctgtca ttattaaaga tgattatatt   180
cattcaaagc tttagatgtg tcccatgtgg caagaaagga gacagtgaat tttgtcaaac   240
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gttatttcca ctgaaatttg ttatgtttaa ggaaattaag attttaagct tgaaattata   360
caagcagaat ctaatttaat tttgattgac tgaagaacca gggctcttttg ctctcctttg   420
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cattctttta ttcagcatct ccctatgtat gtgtcataga atacttagtt ctgctagata   540
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gggctcaatg ttttccaaaa ctttatttga ccccaaaaac ctttttcata tacccaataa   720
taagctacag nanctaatat tccgcaaatg gtcccttggg aacacactgc cttaaacagn   780
taattcc                                         787
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<210> 4750

<211> 625

<212> DNA

<213> Homo sapiens

<400> 4750

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actctaattcc gtgctggaat gacagaagag gcacaacgac tctgtaaacg ctgtgtgtcaa   180
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gcatggagag ctgcaacact tgaaggctgg aaactgtacc atgaccctaa tgттаатгга 240
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<210> 4751

<211> 707

<212> DNA

<213> Homo sapiens

<400> 4751

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 tctgaataaa ggatgagccc agggcctgct gcccactgtc tgctctgatg accctctctc 180
 ccctgcagat ccgagtgatg gtggacctgt gcaacagcac caagggcac tgcctcacag 240
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 ccgcaccctt ctgctgcaga tgggaggtgg aaggagcan gagcccacag ccctgggaag 660
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<210> 4752

<211> 431

<212> DNA

<213> Homo sapiens

<400> 4752

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agcagttgga agttggcagg tggagaggca ggttgggagg gaaagtcggg ggaggacgcg 60
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actgagcaga gcagagcatc tagccaaagg ggagatgagt ttgtctgtcc tctgctgagg 180
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gaggtggcgc cgggacttta accccttgtg ggctctgcgg caagggattt aaccctttgt 300
ggatctggcc cctcgggtggc agcgtcatcg gtagttttaa ccccttcgng gctggntttc 360
acgcactgga cttaccctca tcaccttgct caccaactcc tttattgggg tgctccgctt 420
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<210> 4753

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4753

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aaggagactg taactttgtg gcacctcaag gaatttcttc aattattaag cattacttga 420
aagaatcagg tgcagaagtc tacttcagac atcgtgtgac acagatcaac ctaagagatg 480
acaaatggga agtatccaaa caaacaggct cccctgagca gtttgatctt attgttctca 540

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caatgccagt tcctgagatt ctgcagcttc aaggtgacat caccacctta attagtgaat 600
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 ttatgaagct ggtacgaaga ttgatgtccc ttggggctgg ggcantacat caccaagtta 720
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<210> 4754

<211> 771

<212> DNA

<213> Homo sapiens

<400> 4754

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 gcacaaaacc tggctcctat caagcttctg catctatctt ttttctatt tttctctcaa 180
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 tagtcaactt tctaatacaa tgttaaagtt tatatatttg taaatgttat tgttataaaa 480
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<210> 4755

<211> 697

<212> DNA

<213> Homo sapiens

<400> 4755

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tggggttgat antgccttaa aagatgctga aaaagtccac ttcctcctag tgggaaaagg 660
tgaccacaag attcaagggg ggatgggaaa cncagaa 697

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<210> 4756

<211> 670

<212> DNA

<213> Homo sapiens

<400> 4756

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ccccgcgggg agttaaacgg cagcgccgat ctagcagtgg ggggtctcag gagaagcggg 180
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ttctcctgcc gcctccgccg ccaccttcgc tggcaccgc cgggcccgt gtcgctgccc 360
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ccgggcccac gcataagggc cacaaggagc ggcacaagca ccatcaccac cgcggccccg 480

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atggtgatcc cagctcctgc ggaaccgatc tcaagcacia ggacaagcag gaaaacggcg 540
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<210> 4757

<211> 809

<212> DNA

<213> Homo sapiens

<400> 4757

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 cctgaggtga gtgacacagc gtgggcatca gcaatagcag aaccatcttc tttaacatca 180
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 ccaaataag ctaaaaaagg ctttggggcc aaaaaaggaa gtttgggagc tcagaaactg 360
 gcaaacacat gctttaatga aattgaaaaa caagctcaag ctgcggataa aatgaangag 420
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 gacgagccac tgggagttaa nggagcaatt ctttcncaa cctgggatga cagttcagat 780
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<210> 4758

<211> 898

<212> DNA

<213> Homo sapiens

<400> 4758

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<210> 4759

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4759

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cagatgaaac atgtaatttg ggatggttct tcctttgtca cttaaaggaa gagataggaa 300
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cattcaagca tatctgaatc ctcaactttt tctctttgct ttttagggtc agaactgaga 420
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tgcaagacat ttaaactant tttttgcaaa accatttant tttaaaacaa cttaaagtat 720
atcctagggt gagttaaag tccctgggtgc atccaataat taanatgggc aaggttttgg 780
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<210> 4760

<211> 626

<212> DNA

<213> Homo sapiens

<400> 4760

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cggagagggg cccaaccgc acccca 626

<210> 4761

<211> 825

<212> DNA

<213> Homo sapiens

<400> 4761

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ttatttacta tatgatcatg aagcacaaca ttataatagc tacacttgta agttcacagg  180
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aattgcttta atgangccca tggttactca aggattcctt aagtaaattc aggaaaccnc  780
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<210> 4762

<211> 710

<212> DNA

<213> Homo sapiens

<400> 4762

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ggagtgaact agaaaaaagt gcttactagg gcctaagagt tgctttgtgc cgtgtagtct  120

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ggcctttgca ctagtagatc attgctgaca taggtcagtt tagagacctt tctgtgttaa 180
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 cttttaatca agatacctgt gttgctgtta nctgaactgt agtgaagcat cgatccaaat 660
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<210> 4763

<211> 677

<212> DNA

<213> Homo sapiens

<400> 4763

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 gagtgtgttg tattaaaaaa ataatttgat aaaccaggca anaatagtgn catgtttttg 660
 ggtttttgaa acnatca 677

<210> 4764

<211> 789

<212> DNA

<213> Homo sapiens

<400> 4764

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ctgggtacgc tgtgccaaat tttcaccgga tgaaagacta attgtgtcat gtagtgagga 60
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cgttggattt gcaaattttg tggactttaa ccctagtggg acatgcatag cttcagcagg 180
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ctttcttttt gattcctacc aacaacaaac aagaaacca gtgggtaagg actcctggcc 720
aanacaaagg ggttgaaana aagggcctgg tggggataaa tttccttga aanncccttt 780
cccttttaa                                     789
    
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<210> 4765

<211> 711

<212> DNA

<213> Homo sapiens

<400> 4765

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tagaaagaat gatcgacttg ctgtttccaa tgatgttgaa taagtttact aaatctggtc 60
    
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 acatgctccg agatgatgga ggctttgagt acaagcgggc cattgtggac tgtataatca 660
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<210> 4766

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4766

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 agaaaatgta acctttgtga ttggttttacc ttttctttaa ttctagggtg ggtatatggc 180
 tgccaaggtc cagaaattgg aggaacagtt tcgatcagat gctgctatgc agaaggatgg 240
 gacttcatct acaattttta gtggagttgc catctatgtt aatggataca cagatccttc 300
 cgctgaggaa ttgagaaaac taatgatgtt gcatggaggt caataccatg tatattattc 360
 cagatctaaa acaacacata ttattgccac aaatcttccc aatgccaaaa ttaaagaatt 420
 aaagggggaa aaagtaattc gaccagaatg gattgtggaa agcatcaaag ctggacgact 480
 cctctcctac attccatata agctgtacac caagcagtc agtgtgcaga aaggtctcag 540
 ctttaatcct gtatgcagac ctgaggatcc tctgccaggt ccaagcaata tagccaaaca 600
 gctcaacaac agggtaaatc acatcgttta gaagattgaa acngnaaatg aagtcaaagt 660

caatgggcat gaacagttgg aatgaagaag atgaaaataa tggattttta gtttttgggg 720
atctgggagc aaaacctcct ccgggggaaag ggaaacaaga atgggnantc ccgcatccca 780
ana 783

<210> 4767

<211> 651

<212> DNA

<213> Homo sapiens

<400> 4767

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ggacatccag atgcataaaa atgaatctag atattttgca tttcctgtac cattttgtat 180
tctccactag caatggatga gagttcctgt tactccacat tttcttcagc atttgttgtt 240
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tttcttttagt tttaatggtt catcgtatat ttttgataac agttctttat caggtagatc 480
ttttgcaa attttctcca aggctgttgc ctgccttggt ctcttgacat tgtcttgacag 540
agcaaaaaaa atcctaggct gcaagttaca gatttgggaa agttaangag catattgggtg 600
ctaattggga agccgtaaaa ctgcataaga taaccaanac cagtatangt t 651

<210> 4768

<211> 891

<212> DNA

<213> Homo sapiens

<400> 4768

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 cagtgtcctc agtcaactta cggtttggag gaaggacaac catgaaatct gtcgtgtgca 360
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 ggcagctgac tgtggagagc gacgaaagtg gggatgacct tctggatatt taggtggatg 480
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 caaatgtata tcaacttaaaa atgtcatata ttctgtctgc gtaaaactaag gtatataatt 780
 catatgtgct ctaaattgcag tattatcacc ggccccgcaa aangagtgct taagnccaaa 840
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<210> 4769

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4769

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 cccaacagct ctactttcta catctactct ctaccaccgc aaaacttctt tcagttccat 180
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 cctgggttat gtacccttcc caaagtgcac ccagacacc caacagtttt tccagcccag 360
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atattagttg actgaagaat gactatgtgg taatctattc cattggtggc ctccagtgaa 540
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acagaatgct gcagaagcga caccctgcca cttgtgcttt tgtgatccta gccaccagta 660
agaagcccctg tgaccttgct gagacctgaa gagacacata gaganggcac ttgaanggca 720
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tna 783

<210> 4770

<211> 671

<212> DNA

<213> Homo sapiens

<400> 4770

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ttttttttga gatggagtca ctctgtcacc taggctggat tgcaatgggtg caatcttttc 180
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atttcacat gttggtcagg ctggctcga gctcctgacc tcgtgatcga ccttccttgg 360
cctcccaaag tgctgggatt acaggcatga gccactgcac ccagccttgg cgggcattctt 420
tcaccaaaag tactcangaa gccaaagtgt gaggaccct gcagcacang agttcaaggc 480
ttcagtgagc tatgggtgca ccactacaca tcagcctggg tgagagagt agaccatgtc 540
tcagaaagga agaaaaatta tccacttgta ggttgtctct aattacttcc ctgacccgca 600
ctcttcattt gtccaantgc tgcagctgtg ctctcaacaa nttttacaac ttctgggaaa 660
natgcccattg g 671

<210> 4771

<211> 780

<212> DNA

<213> Homo sapiens

<400> 4771

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gaatctccca ggacccta atcgcccag gatgctggga ggaacgctga gccgacctct 120
ccgttaggct gaagattgca caaacatgc taatggccag catggatgga gggagcgtgt 180
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gggctcaagg gatcctcctg cctcagcctc ccgagtagct gggactacag ttcctgctgg 420
aatcttgctg ttgccattc aagtctggtg gttcctgtgt gttgggggtg ccttgcttct 480
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gtcccagggg attgggcaat cctggtcaca agatatttaa gggttaaggg aataaagtta 660
atgntgctaa gtaaataaag ancctgaaat ccttcccgtg agaanattca aagaaatcaa 720
ctcctgggaa tctgggaata aagacccttt ttcccgttaa aaaaaacccc tngccctggg 780

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<210> 4772

<211> 666

<212> DNA

<213> Homo sapiens

<400> 4772

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tgcacacagt gggagctaaa gcaagtgtag ttgatgggac tccttttagtt gcagcaccct 60
ctttaaatgc cacaaccgta gtaacaacag tttatcagga gccattatg agccagggag 120
cagccttgag tggtgagcct actactctga ccaaggaaga agaaaagaaa cagcctgatg 180
aagaacccat ggacatggtg gtggaaaaac aagaagaaac ggaccacaag aatgacaatc 240
aaatactgag tgaaattgtt gaagcgaaaa tggcagagga attgaaacca atggacactg 300
ataaagagag catagctgaa tcaaaatccc cagagatgtc catgcaagaa gattgtatta 360

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gtgacattgc ccccatgcaa actgatgaac agacaaacaa ggagcagttt gtgccaggtc 420
 caaatgaaaa gcctttgtac actgcggaac cagtgaccct ggaggatttg cagttacttg 480
 ctgatctatt ctaccttctt tacgagcatg gacccaaagg agcacagatg ttacgggaat 540
 ttcaatggct tcgagcaaat agtagtggtg tcagtgtcaa ttgcaaagga aaagactctg 600
 aaaaaattga aagaatggcg ggtcacgaag cagccaaagt tttgaangan attgtgtggg 660
 acctan 666

<210> 4773

<211> 720

<212> DNA

<213> Homo sapiens

<400> 4773

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 attaggagga gttttgaggc agcagctggt tgtcagtaaa gaattacgga tgtatgatga 180
 aagggcacaa gaatggagat ctttagcccc aatggatgct ccccgttacc agcatggtat 240
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 aaaaactgct gttgatacag ttttcagatt tgatcctcgg tataataaat ggatgcaggt 360
 tgcatcatta aatgaaaagc gcacattctt tcacttgagt gccctcaaag gacatttgta 420
 tgcagttggt gggcgcagtg cagctggtga actggccaca gtagaatgtt acaaccaag 480
 aatgaatgag tggagctatg ttgcaaaaat gagtgaaccc cactatggtc atgctggaac 540
 agtatatgga ggcttaatgt atatttcang aggaattacc catgacactt tccaaaatga 600
 gctcatgtgt tttgaccag atacaagata aatggatgca aaaggctcca aatgactaca 660
 gtcaanaggg cctgcaattg catgtgtaca gtttggggan aagcctccaa ggn cattggg 720

<210> 4774

<211> 758

<212> DNA

<213> Homo sapiens

<400> 4774

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tcaattttaaa attaggtaaa ctttttatga tactataata tatatgacgt tgaaatgaca 180
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caaaattagt atttattgat ttggaagtgt tcaattgaga gtaaattgact ctgtgttttg 420
aaactaatac ctttgcattt aaaatactga agtattatct tgttagtga agtagatctt 480
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atattgaaat ttaaaatgaa tagtcttact ttaaggncct ttactttaca tttacttta 600
aagggccgtt tttaaacttt aagcactagt gggattgaaa cctaacctta atatttgact 660
aaaattgcct gtggaatttt gggaaactaa gttttaantt ttaaaaggca attggttaag 720
tgnaattaac ccttaccnaa aatttatcaa cttaagg 758

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<210> 4775

<211> 638

<212> DNA

<213> Homo sapiens

<400> 4775

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ctgtcactgt ttttttttaa acttatactc aaacatacac aacagtaaag gaaattatat 300
gaaaagaatt ataggaagct agatgaattg tttatctaag ttgtcaatgc aaagcaaagt 360

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ttgtttttatc tgtatcctgt attattttgt aacaaaccct gaacattttg tttcattcat 420
 aaatatttca ttaggtatct ttgaaagata aggatttttt aaaaatataa ctctaattgc 480
 atttatattt tcaaataatag ctagtcagtg ttcagatttt cctgttagtc tcaaaattct 540
 ttcttatggg gtgtttattg taatcanggt ccaaataata tctatatatt gcaattggnt 600
 gatatgtccc aagtgttttt tgatccatag nttatcca 638

<210> 4776

<211> 681

<212> DNA

<213> Homo sapiens

<400> 4776

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 gccagccata aggatatcca actgttgtat acacagagct tctcctaact ccgatgaaga 180
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 aggcgccccaa atccagccat tacctgctgg actgcggtat atcttcagnc acaggaaagc 660
 cagnntcaaa aacaaaaatg g 681

<210> 4777

<211> 734

<212> DNA

<213> Homo sapiens

<400> 4777

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aaaggcgtga gcgcgctgc gtgcgtgtgc ggggtgcgtga gcgtgagcgc gcggaggccg 60
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ttcccttggt tgca 734

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<210> 4778

<211> 711

<212> DNA

<213> Homo sapiens

<400> 4778

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gaacagtgat ggaggatatag tagttgaaga ttgtttgatt ttgctccaaa acttattaaa 240
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 aagaccggca attgtagtac ttcccaatgt ccatgggttaa tgaaaaggca gccatttggt 660
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<210> 4779

<211> 834

<212> DNA

<213> Homo sapiens

<400> 4779

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 agtgggtttc attgtgactt ttatcactat cactaagaat gcaatttaag ttgccttttg 180
 gcatcataga tcatagaaac tttctctctg aatcataccc atgtgtgaat tttcatttta 240
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 taccatttg tgagcactta aaacactcca cagagtcaga cagtgggaaa ggtcacctt 660
 tttttaatcg gcaggtatca agttagaatg tatggaattg tgaataaaaa ttatatttta 720
 ttttatgaaa atattttata taataaaatt taaaaggctg ggaaagccaa aaaaatagcc 780
 tccttaancc caanggggtt tccccaattt agccctttcn aaaaatttat ccgg 834

<210> 4780

<211> 737

<212> DNA

<213> Homo sapiens

<400> 4780

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ttaacctagg agagcactta gaggatttgc tgccgtatct gtcactggta agggcctgaa 180
gacagggcac gaatagtact ctgtccttgt gtgtgtgtgt ccttggtgcc caacatgagg 240
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gcagagaaaag cangtagcta tcagatgact gtcaacagag gagttcttag aggcctgaga 600
gaaccatggg gttataaatc tcaagggact cctatcaact tcangtattt cagtgttctt 660
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tgntagctga attaaaa 737

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<210> 4781

<211> 830

<212> DNA

<213> Homo sapiens

<400> 4781

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<210> 4782

<211> 634

<212> DNA

<213> Homo sapiens

<400> 4782

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angaggagat caggattgga gctaagccct gacctcatct caantgctt ggncccttga 600
aaagtacctg gacaatccca acgccctcac agag 634

<210> 4783

<211> 690

<212> DNA

<213> Homo sapiens

<400> 4783

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gaggtgaaac gtgttgagga tacccttcta ggtatggcca cacagtgtgt ccaggtaaaa  180
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<210> 4784

<211> 775

<212> DNA

<213> Homo sapiens

<400> 4784

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gaacagttgg gactagaagc aaaagtgatt ctgggactaa aataggaagc agatgtcctt  180
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<210> 4785

<211> 628

<212> DNA

<213> Homo sapiens

<400> 4785

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 aaaaaataaa aatagctggg gatgatggca gatgcctgtg gtcccagcta cctgggagac 540
 tgangtggga ggattgcttg aaccangtg ttggaggctg cagtgagtca nggactgcac 600
 cactgcactc caacctgggt gacagagt 628

<210> 4786

<211> 649

<212> DNA

<213> Homo sapiens

<400> 4786

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<210> 4787

<211> 649

<212> DNA

<213> Homo sapiens

<400> 4787

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cggcggaata cggtttcttc aggacattca gcaaagcggg gaggcgggga cctgcgggcg 360
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<210> 4788

<211> 778

<212> DNA

<213> Homo sapiens

<400> 4788

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<210> 4789

<211> 627

<212> DNA

<213> Homo sapiens

<400> 4789

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agagatggaa tttcaccgtg ttgcctaggc tggctctggag ctcttgatct caagcgatcc 180
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<210> 4790

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4790

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<210> 4791

<211> 659

<212> DNA

<213> Homo sapiens

<400> 4791

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<210> 4792

<211> 583

<212> DNA

<213> Homo sapiens

<400> 4792

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 cactgcttcc tttanttggt gcctttgttc cattgaatgt tcccaataac aaaaattcta 540
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<210> 4793

<211> 789

<212> DNA

<213> Homo sapiens

<400> 4793

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<210> 4794

<211> 812

<212> DNA

<213> Homo sapiens

<400> 4794

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<210> 4795

<211> 695

<212> DNA

<213> Homo sapiens

<400> 4795

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<210> 4796

<211> 769

<212> DNA

<213> Homo sapiens

<400> 4796

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<210> 4797

<211> 842

<212> DNA

<213> Homo sapiens

<400> 4797

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<210> 4798

<211> 736

<212> DNA

<213> Homo sapiens

<400> 4798

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atcaaagcca gctgccaagt tttagaggca gaaacattta aatgtgtttc atgcaatcgg 720
ntttggnca cactca 736

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<210> 4799

<211> 713

<212> DNA

<213> Homo sapiens

<400> 4799

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atctgcaagg gggaaacagg attttgcaa gcaatccttt cattactaaa gcttcctttc 60
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atggtcctgg ttctgaggc tgccagaaag catcttagca atttgtgttt ggaaggcca 180
tgcctgacta ttctaggctg gaggttccta aagagtaaca agaggaagag aaacaagaat 240
ctctgacact tggtgagaat agagcacagt cccatttgtt tgaaaagaga caccaggcag 300

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ccatgtttat gtgccagaaa tgcatccac ctcaaggagg acttaattta tggacccgtg 360
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 cctggaaact aaaggatttc atgtagtaaa ctatcttcca acccctgtag gcatcaagac 480
 cacaggatga ggtttcagaa ngtcataagg cagaatagtt aagcctacag ggcttacagt 540
 ctgacagacc tgggttcagt tcttgggtcc tcatcactag ttttgtgact tcgggaagat 600
 gactcccga gcctcagtga gcctcaatta cttcatatgt aaatgaagta atactatcna 660
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<210> 4800

<211> 738

<212> DNA

<213> Homo sapiens

<400> 4800

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 acattttatg aagcagcaaa tattaggaag agagcggata cagaatttag tgcctttgag 600
 aagaatataa ttaaagtgga attaanaggg ggtagaaaa aaggcaattt agaaaantat 660
 tcctggaaaa cttaattgtt ccaaaagggtg aaacangaag attagacaaa ttccctaacc 720
 ctttaagtant ttttttaa 738

<210> 4801

<211> 700

<212> DNA

<213> Homo sapiens

<400> 4801

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aggaataaaa ccacagaaga aaatggagag aaggggactg aaatattcag agcttctgca 60
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cgcctgggca agtacgagca cagcatcagc gtgcggcccc agcagctgtc cgggaggctg 180
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cacaacagca ggcagagggg cagtgggcgc ggggaagatg attctgggcc tccccatct 300
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agagaacaga gcattgggga catccagggt ctaaattggct attttgtgca ctactttgct 480
cctaaagacc ttcctccttt acccaagaat gtggtattcg tgcttgacag cagtgttct 540
atggtgggaa ccaaactccg gcaagaccaa ggatgcctc ttcacaattc tccatgaccc 600
tccgaccca aggaccgttt cagtatcatt gggttttcca aaccggatna aagtatggga 660
aggccacntg atatcagtca ctccagacag natcagggat 700

```

<210> 4802

<211> 722

<212> DNA

<213> Homo sapiens

<400> 4802

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gggcgccccaa ttccggaagg tgctgcacag ctgtggcggc ggggtactgcg ttagtgatta 60
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acattctgta cacacccttg tgttcaggtc gttgaagagg acctatgaca tgtttgtagc 180
tgataatgga aaacctgtgc ctttagatga agagagtcac aaacgaaaaa tggcaatcaa 240
gcttcgtaat gagtatggtc ctgtgttgca tatgcctact tcaaaagaaa atcttaaaga 300

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gaagggtcct cagaatgcaa cggattcata tgttcataaa cagtaccctg ccaatcaagg 360
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 tttgacagca gatactaaga tccagagaat gccaaagtga tcagctgcac agtccttagc 480
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 ataccgacat cctggggctt ctgaccgtcc acagcctaca gcgatgaatt caattgtcat 600
 ggagactggc aataccaaga actctgcact gatggctaaa aaagccccta caatgccaaa 660
 accccagtgg caccancgt ggaaactcta cagggtatc agtgggcatc ntggctgggt 720
 tc 722

<210> 4803

<211> 690

<212> DNA

<213> Homo sapiens

<400> 4803

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 tggacctaan tatttaagat tatnaggtt accccaactt gcaagttttt ttcaagccaa 660
 gagatacaat cttaatgaag ggtggctnga 690

<210> 4804

<211> 494

<212> DNA

<213> Homo sapiens

<400> 4804

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aagtagcggc ggcgcttcaa gatgcgctgc ctgaccacgc ctatgctgct gcgggccctg   60
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gccacctaca gtgagtacct gggtaggcctc tggcctcagg tgttcctgac tggtcctgct  180
ggagtagggg aagagacctg agttccagtc ctggctttgt caggggcgtt cttctctggg  240
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ggggttgcca agtgtgancc atgggtacct gtgcctattg ccagtccttg gtgaaggcaa  420
aggctcaagc cccccaccta tcccccttga ntctctttc aagccctggt gggcagggaa  480
gtncgtctgg gctc                                     494

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<210> 4805

<211> 570

<212> DNA

<213> Homo sapiens

<400> 4805

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tgcagaagac tttcagtcgt ttttgctgga atgattgagc ttacattttt tattctttcc   60
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ggaattttct ggatgatttg tcatattatt tttcttttaa ctctttgggg attccatacc  180
aaattaaatg actgccataa agtatatttt actcccagga cagattacaa tagccttgat  240
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tttagtcttc ttgcaacagc gattttggga gcagtttcct ggcagccaac aaatggaatt  360
ttcttgagca tgtttctaata cgttttgcca ttggaatcca tggctcatgg gctcttccat  420
gaattgggta actgtttagg aggaacatct gttggatatg ctatttgtat tcccaccaac  480

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<210> 4806

<211> 543

<212> DNA

<213> Homo sapiens

<400> 4806

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tacaatttgt tttttcagat gaagagactt ccagtgatgt gaaaagtagt tgcagctcca 120
aacctaactt ggatactatg tgtaaaggct tccagagtcc tgataaatct aataactcta 180
cagggacagc aattacatta aattcaaaac tgatttgttt aggcactcct tgtgtcattt 240
caggttccat ttctagtaat acagatgtta gtgaagatag aactatgaaa aaaaatagtg 300
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tgggtacaag tgatcctttt tcagccagta ctgatatagt aaagcaaggg cttgtggaaa 420
attattttgg gtctcaaagc agtacgggta tttctgacac atgtgctgtt agctacagca 480
atgcacttag cctcagaag gaaacttctg aaaaagngat tagtaancct cagcaggaan 540
agg 543

<210> 4807

<211> 637

<212> DNA

<213> Homo sapiens

<400> 4807

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tacaatagtg caaaggtaat tcatttgaga aagtagtctt ttcaacaaat ggtgatgaaa 180

cacttggata tccatattgca taaaatgaaa cttgatacac attttatgtc tcatacacia 240
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 agtggtagta acttttgtct ccaagaaaca aagtatagag acatttttga ctgtcagtac 360
 ttggggggag gagatcactg gcattctaag ggtgcagacc agggatgtca ctaaatatcc 420
 cacaatgcac agcacagtca ccatcacaca cacgaaaatg ccaatttcta gtctggataa 480
 atataccattg gntatgtaac tatctcttat tagaggaaca gnaacttggg aaagagtgtg 540
 tgggaatgct ttttactccc ttigcaactc ttcagggcaa tagactatac ttcaaagtcn 600
 aacattttaat aanttcccaa tccaattcng ggaaagg 637

<210> 4808

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4808

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 agctataaga acaatgtctt aaaccctgaa gaaatgagac gaagaagaga ggaagagggc 180
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 aatgagaatt gtacattaca gtttggaaaa ngcccctgcc ctggggctct aaacgaaata 540
 ttgcctcctg ggaacctctc agcggggacc aaaaattgtc attgaagcag gggctgtccc 600
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<210> 4809

<211> 635

<212> DNA

<213> Homo sapiens

<400> 4809

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ctaaagaaat aatagctgaa aacgtcccaa atctgggaag tgatatcaat attcatgtac 60
aagaagttgt atgcaggttc ttttcacttt gagaaacaga aggtgaaact caaactggct 120
taagtaattt taataaaatg tattggttca agtgacttaa aaaccacact ggttccagga 180
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ggaaacccca aaataggaaa gctaaggaaa ttttgggcct ggttaacctg ggaaaagggg 540
ggaaaattgt ttgcaacctt ttcaagncaa aaggaatgga aaattccaag ttaatttccc 600
aaaattttcc aaggcnttcc cccaacaatt aatgg 635

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<210> 4810

<211> 657

<212> DNA

<213> Homo sapiens

<400> 4810

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gtcagccttt cctcaccgct actccaggtt cactaatgat ctccctgttg cccaaccaat 180
ggttatttgt tagttcacat ttcagttacc ctctcagaag cctttggcac agctaatac 240
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tactggggct tttttgattc cctgattggt aacccttgga gcaagcactc ctgtggccat 480
 ggagactcta gataggatca aggttaacca agaaggggct tgcctggcaa gtcattttta 540
 aagggggaaa tctctgccaa aaattaggtg ggctaaagga anctggggtt aaaaagaatt 600
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<210> 4811

<211> 741

<212> DNA

<213> Homo sapiens

<400> 4811

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 nggaacttta actgcaactt cgaaatggtg gtttacccaa nggtttatgg gttaaccctt 720
 tgaatggccn gttcctggga a 741

<210> 4812

<211> 621

<212> DNA

<213> Homo sapiens

<400> 4812

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tttacctgtg acccaaggat tagtaaccag ggcatacact gatgaacttt ggaacatggc 180
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gcttaagaaa tgggctggag ttttcaggga ctttttgaa gaagataatt acagcccat 420
ccctgttgtc aatgaagaag aatataaaat tgtcatcagc aaatttcctt ttcaagatcc 480
agaccttgaa aagcaagtct tccccccaa aaaaangaa aaatttcccc caatgggtcc 540
tcaaggttcc aagtggcccc tccaanaant tttaccxaa ttttcaaag ggtttttaaa 600
aaaagggaat atttttaaaa n 621

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<210> 4813

<211> 665

<212> DNA

<213> Homo sapiens

<400> 4813

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tcacaaaatt gcctaataca aagttaccat gatgcctgcc tcactctgga ctgggctccc 180
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tttggntata attcacttca agatctgttg agtangaaca tcaaaaatgc aaataaaaag 600
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 gtggg 665

<210> 4814

<211> 720

<212> DNA

<213> Homo sapiens

<400> 4814

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<210> 4815

<211> 548

<212> DNA

<213> Homo sapiens

<400> 4815

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<210> 4816

<211> 789

<212> DNA

<213> Homo sapiens

<400> 4816

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 gaaagaaatc acagatgaca caaacaatg ggnaacacat cccatgttca tgaatagggt 720

caatcaatat tgtgaaaatg accatacttt ggtagatttg caaaaagcaa tctacanngt 780
caatgcaat 789

<210> 4817

<211> 795

<212> DNA

<213> Homo sapiens

<400> 4817

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<210> 4818

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4818

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<210> 4819

<211> 786

<212> DNA

<213> Homo sapiens

<400> 4819

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<210> 4820

<211> 668

<212> DNA

<213> Homo sapiens

<400> 4820

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cctttggggc attctgcctg ggggggccc ctctacnag ggctgcaagc cgggggcttc 660
cggacat 668

<210> 4821

<211> 706

<212> DNA

<213> Homo sapiens

<400> 4821

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tacttccatt aaaatgataa ctgggtgcac agtgccaact gcaagagtgg tgggtgttaca 660
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<210> 4822

<211> 725

<212> DNA

<213> Homo sapiens

<400> 4822

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acggcgaggg cgggccccca gccccgagcc ccgcgcccgg cccgcccgtc aaggaggagc 180
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acaagctgaa gccgctggtc atcgggcggc tgccggaccc gccagcctg cgccaccaca 480
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<210> 4823

<211> 803

<212> DNA

<213> Homo sapiens

<400> 4823

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<210> 4824

<211> 757

<212> DNA

<213> Homo sapiens

<400> 4824

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ttctcctgtc aattgtttgg tggatggggg tgggggagta attgctaagt ttacaataca 720
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<210> 4825

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4825

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attttgggaag acagtattca gaaaaaaaaat ttccttaata aaaatacaac tcagatcctt 180
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<210> 4826

<211> 833

<212> DNA

<213> Homo sapiens

<400> 4826

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 tanaagaatg tacagcctta tgacactgta ntggatgttt ttaaaaattt ccaaagtaga 720
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aatggagaag ctccttaatt tttgggacan nattccggtc gntttttttt taa 833

<210> 4827

<211> 747

<212> DNA

<213> Homo sapiens

<400> 4827

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<210> 4828

<211> 726

<212> DNA

<213> Homo sapiens

<400> 4828

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aatgactact tgagggtat ttcagagAAC caatatgaaa tgtttttggt agtacaaaat 480
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gcatttcattg cgtacagtta gttgattaga tatttcagggt ttttgcatth tctanagnca 660
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atttcc 726

<210> 4829

<211> 725

<212> DNA

<213> Homo sapiens

<400> 4829

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atgtgtccgg gagacactgt acctcaantc tatattgact aaatccagat ctgtgattga 660
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gaaat 725

<210> 4830

<211> 580

<212> DNA

<213> Homo sapiens

<400> 4830

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<210> 4831

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4831

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<210> 4832

<211> 753

<212> DNA

<213> Homo sapiens

<400> 4832

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 gggacagtgc tgtcccaaga cttgcaacaa tcaatttcaa tttgccaatc ccaaaaattg 720
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<210> 4833

<211> 742

<212> DNA

<213> Homo sapiens

<400> 4833

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<210> 4834

<211> 555

<212> DNA

<213> Homo sapiens

<400> 4834

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aaaaagtgt catgacatat tganaanacc tacttacaaa gtggcatata ttgcaattta 540
ttttaattaa aagat 555
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<210> 4835

<211> 632

<212> DNA

<213> Homo sapiens

<400> 4835

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ctgttgttta ctttgggaaa gaagaaataa atgaagtcaa aggagtactt gaaaacactt 540
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<210> 4836

<211> 717

<212> DNA

<213> Homo sapiens

<400> 4836

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ttaaactgca gaggcaaga gatgcctcag tcaagtcagc caaaaacacg cgggtcatcc 180
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tgttctgtct ttcctgggaa gttattcatc ctggtggcca gccaccgac aaaatggatt 360
tggatctact ggacctgaat ccagaatta ttgctgaat taagaaagcc aaactgaaat 420
cggtaaagga ggttttacac ttttctggac cagacttgaa gagactgacc aacctctcca 480
gccccgaggt ctggcacttg ctgagaacgg cctccttaca ctgcgggga agcagcatcc 540
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gcctgggctg cccgggtctg gacgcgtgc tccgcgtgg cctgcccctg gacgggatca 660
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<210> 4837

<211> 722

<212> DNA

<213> Homo sapiens

<400> 4837

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tccgacaaag cagatctgga cagtgaatga agctctaatt cagaaatggc tgagctatcc 120
ttctggaagg tttcctgtgg agatagccaa tgagatagat ggaacgtttt cttcctctgg 180
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ttgcctaaat ggaagttttt tagctgttag caatgatgat cactatagaa caggtaccag 240
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 tcatccgcag atatctcagc aggtggcagc tagtttgga aagaatctta ttcctaaact 360
 gactagctcc ttacctgatg ttgaagcatt gaggttttat cttactctac cagaatgtcc 420
 cctgatgagt gattccaaca atttcacanc aatagcaatt ccctttggta cagctcttgt 480
 gaacctagaa aaggcaccac tgaaagtact tgaaaactgg tggtcagtac ttgaacctcc 540
 actattcctc aagatagtag aactttttta ggaagttgtg gtacatcttt tgaaactcta 600
 caagatcggt attccccctt ctgaaagaag aattttcaac agttttcttc atactggcat 660
 taaaggnttt agaaatacta catagggtaa atgggaaaat ggggacagnt tatncagtaa 720
 gg 722

<210> 4838

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4838

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 agctttaaga atttcacgtt tgaactttac agctgtttac caattaaatg gcaagctgga 120
 aaaatacatt ttgagagggg tagaaagaat aagaatataa ttaaaagtat gctaacaaaa 180
 taagcagtac atattttttt agaaaatgca gtttaggccca ggcacggtag ctcgtgcctg 240
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 cagcctggac aacatggtga aaccccgctc ctactaaaaa tacaaaaaat tagccaacga 360
 tggatgatgcc tgtctgtaat ccagctact ctggaggctg aggcaggaga atcgcttgaa 420
 ccggggaggc agaggttgta gtgagccaag attgcaccac tgcactccag cctgggcaac 480
 agagcaagac tccgtctcaa aaaaggaaag aaaatgcagt ttcattccag ccatccctag 540
 atttcttttc cccttaaagt ggctgaatcc attggagatg tgatttattt tgcagattca 600
 ccaattccaa acttcangaa tattcaagcg ggaagtcatg tgtaagtgac agcctttgca 660
 aagaananac tgtggctggg gtgg 684

<210> 4839

<211> 826

<212> DNA

<213> Homo sapiens

<400> 4839

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aaggaagaca gcaagagagg aacagatgga caaaagaatt ataagactaa cacaaccaa 60
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aggcggatca cctgaggtcg ggagtttgat gccagccagg ccagcatggt gaaaccccat 180
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gcagtgagct gagatcgtgc caccgcgctc cagcctgggc gacagagcaa gactctgtct 300
caaaaaaaca aaagcaaaaa caaaaaacaa taaaatggct gtagtaaatt cttccctata 360
aataattact ttaaattgtaa attgattaaa cccctaatac aaaagatata gaatggctga 420
gtggataaaa aaacaagact acatgctgtc tataagaaac tcactttaga ttaaggaca 480
cacatagagc aatgtgtgtc cttaaacata ttccatgcaa ctggtaaacg agtgcagaag 540
tggtttact tggatcagac aaaatagagt taaaatttaa aactgtcata agagacaagg 600
aaggacatta tataatgata aaacgggcaa ttacttagga agacataaca attataaata 660
ttactcaac atcagaacac ctaaataatg aaagcaaatg ctgatagaac taaagagaga 720
aaagcaatac gattaatatc tgagcctctg gctactttgt aaaaaaggaa aaaaaagca 780
ttacaattac agttacaagc ctcaatancc cactttcaan nagggg 826

```

<210> 4840

<211> 681

<212> DNA

<213> Homo sapiens

<400> 4840

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ggaaccggga tggcgacgtc tacactgagt cggaggcgaa ggagcttact ccacgggaac 120
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 acaacagtgt tgttgtgagc ctggctgtct gcttggaccc agaggtttcg tctgccaggg 240
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 cgtcctgccc cgccacagac gccgagacag cctccnaagg ggcaacnttg gnaaagcgct 660
 tctgaagaac caaaaagcgg g 681

<210> 4841

<211> 570

<212> DNA

<213> Homo sapiens

<400> 4841

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 aatgaccaag agtttcttca atgcccagtt tggaagcctg ttccgcacag accagaaccc 180
 aaactacttc ctaaggcgcc tgtcgcgctt cgctgacatc tacatggcgt ctctgagctg 240
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 tggggttgac ttcatgtggg tctgagtgtt gcttttgaa aagatacaga taagcctttt 480
 gatatttatt ttgcacctta cggagaataa ntctcccaat gantaagaca ggagctagca 540
 gccancct ccagccttc ccccatgca 570

<210> 4842

<211> 762

<212> DNA

<213> Homo sapiens

<400> 4842

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ataggttaagt tctccagtgg tgattactga gattttgggg caccatcac ccgagcagtg   60
tacactgtac ccaatgtgca gtcttttata cctcgccac tccccaccct tccccctgag  120
tccccaaagt ccaactgtatc attcttatgc cttcgcatgc tcatagctga gctcccactt  180
atatgtgaga atatacattt ggtttttcat ccctgagtta cttcacttag aataatgaaa  240
tccccataca cctaggttca gggctcctcc ccaggaaact tctgaggttt ggggagtcct  300
aggagagaag ttaggaaact ctggcctcca tccccctcct gtagcagcca aagttcttag  360
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tccatttttc caagaaaagg gattagatag gaaagtcaca taccagggg cctgcagcct  540
gtgacttcag aactgggaag tctaaaccct acagcccctt cttcttctga gccacctact  600
attgttgcag aattgtgtga ctgagtcctg tctccttaaa acgaccataa actcttgagt  660
gcaaaggatt gtattagtca agagtaaagc tatgctgcta nnaaaaaata gtcctacat  720
gcaaagggtc aatacagtag atgtttattt cccggcttan aa                        762

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<210> 4843

<211> 660

<212> DNA

<213> Homo sapiens

<400> 4843

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aaaaatcaga ataagaagta cctgacatac tttctacatc tgtagttgcg gaagacattt   60
taataggctct tctcatagcc tttctttgct aaggacattg tgactctcca gagagcaaca  120
gtgatggctc tagaatgtct aggaaaaaaga agggcttaat gtcaggagtc tgcttggggc  180

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acacaacact agaagatgtc cttctgcaca ttgtttcata tcgagtatgg aacccttcag 240
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 aatgagagtt atctcaacca gccagcacc cctatcccca tccccacact ttcctcatg 360
 ggaggctgtc gggagcactt cgaaaaccac tggaaaggcc gggcacgggtg gctcatgcct 420
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 ccagcctggc caacatggcg aaaccccatc ttactaaaa atacgaaaat tagccaggta 540
 ttagaattat ttctgaatta tcagtctctc atttgtgctt tggagaagca gaaaaggcan 600
 aaggggtctt tggccatctt ctgctggagc ttccanggan gatgtgtctc caagagacca 660

<210> 4844

<211> 773

<212> DNA

<213> Homo sapiens

<400> 4844

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 actcttggaa gaatttagtt tagttacata ctttttttaa aagataggct ttcattgtcc 180
 tcagttcctt tagtttttaa aaagtttcca atgtgtaaag aaacttccac ctgttaattct 240
 taagaattgg tagctatttg ttaaactgat ggcatatgaa ggcaagagtc tatgagtcgt 300
 ttctaaagta atagatcttt gaaaatttta aaaagtgaag tttgtcaata acagagttaa 360
 gagctgaatt cttttgtcta aaacttatcg aaattgatgc ttgtactcta ctggctccct 420
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 cctctccttt ggtagcagtg atagacatga ctaaataana tatgggtcct tttggtttgc 720
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<210> 4845

<211> 622

<212> DNA

<213> Homo sapiens

<400> 4845

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gaagtggcgt acggcatgcg ccggtggcgt gatggagcgg cagcagcagc agcaacagca   60
actgcgaaac ctgcgtgact tcctgttggc ctacaatcgg atgacagAAC tctgcttcca  120
gcgctgtgtg ccagcttgc accaccgagc tctggacgct gaggaggagg cctgtctgca  180
cagctgtgct gggaagctga tccattccaa ccaccgcctc atggccgctt acgtgcagct  240
catgcctgcc ctggtacagc gccgcatcgc agactacgag gctgcctcgg ctgtgccagg  300
cgttgctgct gaacagcctg gggctctctcc atcaggcagc tagccatacc caaccccagg  360
aaggaaggcc ttggatggac cctcagattg aaggaccagg tggaccttgg ggttggtgaa  420
tcctaaacag agagaattcg aggttgcctg aaaagctggg tgccttgct ccttttcctg  480
gagccaatat acccagtttt tactcagttt gatntatatt ctgggcaagg aagctttgcc  540
tactttattg gcacaatccg ttgttctgtc gtttagtgca tatcngctgg cttcagccct  600
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```

<210> 4846

<211> 476

<212> DNA

<213> Homo sapiens

<400> 4846

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tccaaagaat gttgctacag agacacaatt gaaagggtgt cagcattctc aagctgctcc   60
agtgaaatgg attttccaag ataatctaca gccttttacg ccatctcttg ttctgttaa  120
gtcttcaaat aatgtggctt caaagatttt aaaaactttt gtagatagga aaaatttggg  180
agataatact ataaatatgc caccattgag taccatcgat cctagtggga cgcgatccaa  240
aaatatgcct attaaagata atgctttggc tatgtttaat gggaaagtct atctgttggc  300

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taanaagggg acagatgttc tgccatcaca aattgaccaa cagaattctg tttctcctga 360
tactccagta agaaaagaca cgttacagac agtgagtcca agtccagtca canaaatata 420
caganaggtt gtaaataattg ttttggctaa angtaaactt tcccagatgg agacaa 476

<210> 4847

<211> 630

<212> DNA

<213> Homo sapiens

<400> 4847

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gataggcaga tcacgaggtc aggagtcca aaccagcctg gccaacaggg cgaaactcca 180
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aaaaaaaaag aagggggata aagaaaaaca ctggaaaaag gatgacctgt agttaagtgt 420
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agactgtcgt gggctcattt cctcagcgtg ttgatttagt gactcctgaa ggagcagacc 540
cttggtttgg ncctcacttt tccataagac gttcaaatag atttaangcc tgagggtcct 600
gtcatctaaa tccattcagt anaccgtaca 630

<210> 4848

<211> 642

<212> DNA

<213> Homo sapiens

<400> 4848

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 ccctgcacag agcacatcaa atggaagggg ctctgtctca cagctactca ggaggctgcg 180
 gcaggagaat cacgtgaacc caggaggcag aagttgcagc gtgccgagat agcgccactg 240
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<210> 4849

<211> 571

<212> DNA

<213> Homo sapiens

<400> 4849

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 aaaaagggtt ctttatggta tcattaaata taatttcagt ttttatatgt atacatcatc 180
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 agcatacaga tatttaactc tgaggtatgt gtccacaaag ctgcttttgt catttcacta 480
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<210> 4850

<211> 576

<212> DNA

<213> Homo sapiens

<400> 4850

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gaaacaactg gtgacatcag tgattccatg gattttgtac tgctcaactt tgcagaaatg 180
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cctgatgaat ttcacctcca gactttgaat cttttcttc gggcctgtgc tgagttacac 480
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gcncaccctt aaaaatggnc ctggaatccc agcggg 576

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<210> 4851

<211> 698

<212> DNA

<213> Homo sapiens

<400> 4851

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ttatgcagca ggcattaagc agtcacactg cttttaccaa acacagcgag gaacttggaa 180
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aacagactca gctgcaagtg aaaactctgc agtgcttcca gactaaacag aagcagacca 360
tccacctgca ggcagaccag ctccagcaca aactcccga aatgccccag ctttccatca 420

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ggcatcaaaa actcaccct ctccagcaag aacaagcaca gccaagcca gatgtncagc 480
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 cgcaaactgt agtacaggtg cttgcagtga aaaaccacgc agcaagctcc ctaaaactgg 600
 cagcagggtc cggaaccaa ccaaaaaatc tacgntgtaa accccaaaac cccccangag 660
 ccaaattgtc gctcccangc ttcttcaaga ggaaacaa 698

<210> 4852

<211> 761

<212> DNA

<213> Homo sapiens

<400> 4852

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 gatcaatctt accagagggc cctcagggct gggcttcaac atcgctcggtg ggacagatca 180
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 gtctccaatt ctcatattc taatggggaa aagttaaggt atttgtttga aaggaaaact 720
 gaaagaaaag acntggntta naacaaatgg aggagttat a 761

<210> 4853

<211> 830

<212> DNA

<213> Homo sapiens

<400> 4853

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attggataga gagtcaagac ccatcggtgt gctgtattca ggagactcat ctcacgtcca 180
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acgaagagct aactatccta aatatatatg cacccaaaac aggagcacc agattcataa 420
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aatcaacaga atatacttc ttctcagcat cctgatccac ancatcacac ttttctaaaa 660
ctgaccacat antggaagta aaacagtcct cagcaaatgc aaaagaatgg aaatcataac 720
aaacagtctc tcagaccaca gtgcantcaa gttagngttc aagattaaag aaacttgccc 780
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<210> 4854

<211> 676

<212> DNA

<213> Homo sapiens

<400> 4854

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ttctatggct ttcccaccac tcatggtgga gcactctgga tgttttatta aagaaagtct 120
tcttgccacc tatcaaagaa acatattttt tagagtcata aaattaaata ctgtgaaacg 180
aaaagatgca aaggaaataa attgaaaatt actaacaaaa caaaaaaccc ctgaatgaat 240
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 taataagaac ttgtcctata cttcctatta tttcactgtg ggaagcagtg ttttgtttgt 480
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 gtgcgggggg accctgtctg tgggtgtaagt aaatgtgtga ttttaattctg tgcattgcat 600
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<210> 4855

<211> 763

<212> DNA

<213> Homo sapiens

<400> 4855

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 tgaagatgga agaaatggag atgtctctca gtttccatat gtggaattta caggaagaga 300
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 tgtgatggct tctgtgtttg tctgtctact ctttcttgga ttggctgtgt ttttcctttt 480
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 ttactctgtc gaagttgaaa acatcactgc caagttcaat tttcaaaaac agtttttggg 660
 aaaggcacgc ttaaacaaac ataagcatta ttgggtccac ttgatnatga aaacaaattt 720
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<210> 4856

<211> 748

<212> DNA

<213> Homo sapiens

<400> 4856

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actggcatct gagaaccag agcctgggac cttagattgc tgtaagcttt ctctggtgct 480
aatatcagca aaaagggtct gttgccgggt acgttcaaga ggaangtgcc tcgtgaacac 540
atctgctggt gggaaggcct aaagaactgg aaaagcccac tctcttgga ccaccacacc 600
tgtttaaga acctaagcac catttaaagc cactgggaaa tttgttgctc aantgggttg 660
tgggtgaata aaggagggca aaatgggatg attttcatct ccaattaacc ctgctgtcct 720
ctgggctaan gtttggtggg gaangtta 748

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<210> 4857

<211> 675

<212> DNA

<213> Homo sapiens

<400> 4857

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gagttcgcca gtggtccagg agccgctttt ttccactcgg gaagacttca gagaagtctc 60
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agcggcctga ccaaggcgct tgcctcacgg acgctcgcg ctcaggtgtg ttcatctttt 180
gctacgggcc ctagacaata cgatggaacg ttctatgaat ttcgtactta ttaccttaa 240

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ccttcaaata tgaatgcgtt catggaaaat cttagaataa acattcatct tcggacctct 300
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 tgtaaggaat ggcaagaaca atctatcatt ccaaatttgg ctgcattga taaacaagag 480
 acggaaatta cttacctgat accatgggtc aaattagaaa agcctccaaa agaaggagtc 540
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 acaggatatt ggggg 675

<210> 4858

<211> 604

<212> DNA

<213> Homo sapiens

<400> 4858

tctctgaatg ctgagttctg ccttaaaaca gcacgggtca tgctagatga aagggatctc 60
 tgttttatac tctcatctct tcgctattgc cgtgggatga aagacagcag aaggaaggcg 120
 tctaagttca gaacaaagtg agcaagacca gctggctgct gttggtagca gaggcacagc 180
 cagcctgtca tggcactggg gggccgaggt gagctgtgcc ccctcctcct gggcttgtga 240
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 ctcagcctct gaaagtgtg gattgcangc gtgagccacc gcaccaggcc taaacagatt 540
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<210> 4859

<211> 781

<212> DNA

<213> Homo sapiens

<400> 4859

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aattcataca ggagagaagt catatatatg cagtgattgt ggaaaaggct tcatcaagaa   60
gtctcggtc  attaatcatc agagagtcca tacaggagag aaaccacatg gatgcagcct  120
gtgtgggaag gccttctcca aaaggtccag gctcactgaa caccagagaa ctcatacagg  180
agagaagccc tatgaatgca ctgaatgtga caaagcattc cgctggaaat cacagctcaa  240
tgcacatcag aaagctcaca caggagagaa gtcatatata tgccgtgatt gtggaaaagg  300
cttcattcag aagggaaatc tcattgtaca tcagcgaatt catactggag aaaaacccta  360
tatatgcaat gaatgtggaa aaggcttcat ccaaaagggc aacctcctta ttcacgacg  420
tactcacact ggagagaaac cctatgaatg caatgaatgt gggaaaggct tcagccagaa  480
gacatgttta atatcccatc agagattcca cacaggaaag acaccctttg tatgtactga  540
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cagacatcgg gggaactcat acagggggaa agaccgttat ggnttgctct gattgttggg  720
gaaagcttcc ntcccanttg tcatgccttg gttaaccaa aagggaatg cctgcttgca  780
a                                                                    781

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<210> 4860

<211> 715

<212> DNA

<213> Homo sapiens

<400> 4860

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gaaaggacgc gccggagccg ggtgagtggc cccgcaactg cccctgcccc tgattcttcc   60
ttgcctcgcc gcgaaccccc gcgcccgcgc cgacccgcca ctgcctctgc ccttttccag  120
ataacagaaa gtaacgtgaa ggaattcagg tgactcagac atggaggaga gaagacctca  180
tctggatgcc aggcccagga attcccatac caaccacaga ggccctgtgg atggagagtt  240

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accaccaaga gctagaaatc aggccaataa cccaccagcc aatgctctcc gaggaggagc 300
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 agagagattt agggccatgg gcaggaaccc acatcaagga aggaggaacc aggaggggca 420
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 tggcaaccag gactgtagga accgcagacc accatgggcc aatgacaact tccagcantg 540
 ggggactccc caccaagaag cctacagaac agccacaagc aggcgaagaa actgggctac 600
 aagttcttag aaagtcttct gcagaaaaga cccttctgan gtggatcatca cacttgccac 660
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<210> 4861

<211> 730

<212> DNA

<213> Homo sapiens

<400> 4861

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 gcaccaacag ccgggtcacg gtaggagaat caactattac agcatccggc aaacaactgg 180
 aattgaccag aaatgccttc agaattaggt ctttttgaat cataagcaca gccatttaaa 240
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 aaaaaataaa tagtgagatc tggaatgtat atagaagaaa agaaaaatcc attctgtttg 360
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 tcttttggat ttagtagttg accttctaac taagactcat ttctctacag tgaaaaagag 660
 aaaaacgttt taatgtcacc tcaaagaaat gcagagtga ggggtgantga aattaanttg 720
 aaggtatcan 730

<210> 4862

<211> 790

<212> DNA

<213> Homo sapiens

<400> 4862

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agacaggagc agtcattccc ttgtagggac aactagaaga aattttatga ataagcatca 60
gaagccagtg ctaacaggcc agcggttcaa aactcggaag agggatgaaa aaganaaatt 120
cgaaccacac gtcttcaggg atacacttgt ccaggggctt aatgaggctg gtgatgacct 180
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agacacactc ttcgatatcc tgggtggctgg cagtatgctt gcccctggag gaacgcgcac 300
agatgatggt gacaagacca agatgaccaa ccactgtgtg ttttcagcaa atgaagatca 360
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ggagaaggca tttgaagatg aaatgaaaaa gcttctcttc ttccttaaag ccttttccga 480
aacagagcaa gacaaagttg gcgatgctgt cggggattct gctgggcaat ggnaccctgc 540
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tgccaggggc tctttttggg gtctctcaat actcattcct tcatttaaga gaatatcttt 720
gtatgggggtg gtanattgcc ctttcaaatt agtaaaaggg agngggncct gttaatttgt 780
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<210> 4863

<211> 600

<212> DNA

<213> Homo sapiens

<400> 4863

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gcttcccgtc cgctgtcctc tgctgccagt cccctgcccc gggcaaagcc catctgggtc 60
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atggccgagc ctggagaggg actgccagag gaggtgctgg cactcatctt ccgccacctg 180
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cgcgacgtcc tggaggctgt gcacgctgta tgcggggcgg ccaaccagct acgccaactc 540
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<210> 4864

<211> 684

<212> DNA

<213> Homo sapiens

<400> 4864

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acagagcgag actccattta aaaaaaaaaa caccagggca tctgtaagcc actttgggag 120
tcaaaagaat gtagagctgg gctggactcc ttagaagaaa gttaagttct gagtgtggga 180
ggaagtgcct gcacccccac atccagacag ccgctcactc ctgctgccga agactgactt 240
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cagggatcct ggggtgtggga ccaggagaaa tgcccacagg ccccagggcc tttttgagcc 360
cagggcgtc tctgcacagg cctgctacaa cttcatccga agcatggccg cctacagcct 420
cctgctgttc ctgctgcaga tcaaggacag acacaacggc aacattatgc tggacaagaa 480
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ggcaccagga ggtggatagg gatccccacc ccacagagag gagaatgccc aagaccaccc 600
tgccaggagt gtcanggtcc aactctgagg tccgaactgt cggncaccaa nctgttctgc 660
tgtaaaaggt gcctgggccc cggg 684

<210> 4865

<211> 777

<212> DNA

<213> Homo sapiens

<400> 4865

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tgaaaaccag cttgtagtta gggcccgag cgcatgcat agactcggcg actcaggaat   60
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cctccagtgc cccagtgact gggcgtgagt ccggaagtgg ccacaacca gcctggaccg  180
tcgcttataa agctgtgtaa acctgtataa gctcaggcgt tgacagctgg aaggcagctg  240
gcactggcag ccccttcat tgcacctatc tccccatct cattgccacg gctgaaccct  300
ccttctcaat cttggaacag ccccccttc ttaagtccc ccaggaccg acagcctgag  360
ccagatttct actgtgtcaa gtggatccct tggaaaggag aacagacacc catcatcacc  420
cagagcacta acggcccttg ccctctcctt gccatcatga acatcctctt tcttcagtgg  480
aaggtgaagc tcccccgca gaaggaagtg atcacatcgg atgagctcat ggcccatctt  540
ggaaactgcc tcctgtccat caagccccag gagaagtcag agggacttca gcttaatttt  600
cagcagaatg tggatgatgc aatgacagtg ctgcctaaac tggncacaag tctggatgtc  660
aatgtgcgat tcacaagcgt ctctgatttt gggatataca ccgaggtgca atgtccnttg  720
accctgctan ggaatacctc cgttacaaag gggntgggct tgtttgattc caaaaaa   777

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<210> 4866

<211> 699

<212> DNA

<213> Homo sapiens

<400> 4866

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gtgtcactcg gcccgtcgg cgcgccccctt cccagccgcc cttccgtacc ggctctcggg   60
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ctccgagtcg cccctgcgga ctggctctgc acagtgcctg ggcaccgggc gccagacaga  180
cactggccat gacgagcggc gcaaccaggt accggctgag ctgctcgtc cggggccacg  240

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agctggacgt acggggcctg gtgtgctgcg cctatccgcc gggagccttt gtgtccgtgt 300
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 agtctggctg aatgncaagt gcatgatgan cttgcagggg tcatacagat gcggtgtggg 660
 cgggtnaaga tcttacctga aacaagggtt taaatgttt 699

<210> 4867

<211> 723

<212> DNA

<213> Homo sapiens

<400> 4867

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 gcttcttct caccgtgctc cagctccaca caccgtactg agcctcgcca gccaccgtac 180
 gcgaggtcgc ggcgcgctcg tgacgtcact gatgtgcgt tctcccgcac taagggaac 240
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 gcgcctcaca ctgggcccgtt gggagcgcgc gccgctagcc tctcaaggct ggaagagtcg 540
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 gaaagctctc gtctaaggc aactttgctg acctgggcct ggagccccgt gtgctgcacg 660
 cactnaaagg gaaggnttgc gccttgaang tcgtttaagc ccaaaaaccg gtggcaattc 720
 caa 723

<210> 4868

<211> 698

<212> DNA

<213> Homo sapiens

<400> 4868

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ataacgagga cacagtgagt gagagggtac aataatgaga ggcaggaagc ggaagactgt   60
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tacgttggaa tcaccttgga atcagctggg gatctttaaa ggtgtttctg cctggctccc  180
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aattaactgt tgaaaataat gtttgattga gttaccatgg gcatgctaaa ttatgtttat  480
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agtgttggna ttcttaaaag tactagaaat ctgaaacca agttatgttt ttaaatatgt  600
tttgaatttg ataactta ataatgtaat taattaaagt catgtttaac actgggaana  660
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<210> 4869

<211> 777

<212> DNA

<213> Homo sapiens

<400> 4869

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attaatctgg ccgtgccatg catctactcc atgttcaggc ttgtggagag gtacgagatg   60
ccacggcacg aagtctacgt tctcctgac cgaacatct ttttgaaaat atcaatcatt  120
ggcattcttt gttactattg gctcaacacc gtggccctgt ctggtgaaga gtgttgggaa  180
accctcattg gccaggacat ctaccggctc cttctgatgg attttgtgtt ctctttagtc  240

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aattccttcc tgggggagtt tctgaggaga atcattggga tgcaactgat cacaagtctt 300
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 cccttttcga ggtctgcctc tcttcattca ctccatctac aagctggntc gacaccctaa 660
 gtacaagggc ctgggctacc tgtgggggtg tttggatcta accggaacc tcaatgggaa 720
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<210> 4870

<211> 526

<212> DNA

<213> Homo sapiens

<400> 4870

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 caggccgcct ttcgagcgct ttgtgtccat gaaccgcggn atcaacaatg gtagcgacct 180
 gcccgaggac cagctgcgga acctcttcga cagcatcaag agtgagccat tctccatccc 240
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 gaacctctcg gtgcanaang tggatgaccc caagaagcca ttctgcctgg gagctctaca 480
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<210> 4871

<211> 737

<212> DNA

<213> Homo sapiens

<400> 4871

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cagcagattt aggcattgga gatctaattc ctgtggatgt taaccatttg aacatttgta 60
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tagccaaaga ccttgaaaac taacagtigt gctcttcag ttttcatatg tgaattcagt 180
gcaagaaact tgggtttctg tttcttcttt taagctctat gcaatcatgc aaacatagt 240
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agcgtctgtaa agcaccaacc cggaagtggc aggcacagaa ggaagggctg gattgggccc 360
ctttgggtgta aagaagtccc tgtgtgctgc tttatggttc gcagtgttgg gcttggtgac 420
tggagcaaag ctgctgtgag agagtgtcct tccccatctg tgactttcct ggtgcatcca 480
ggagggggcac ggcaggttct gaggtaactc aaettacat aaaaatgcca ttaagagagt 540
acctaaaatg gagagaagaa tgaactagaa cattcaagac tcttttactt ctgggtattg 600
atttgcgtgta cattttttaa gtttgagttt ttagctcagt tctacctttt atctgacaca 660
ttattactaa gtggttaact ttgttagact taantggcat gtccggggtc aagttccctt 720
gnatcnaatt ttccgta 737
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<210> 4872

<211> 661

<212> DNA

<213> Homo sapiens

<400> 4872

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gctaaacctt taataaaaaa aaaaaagcat tcgctggtag ccagatttcc acaggagtta 120
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gctgggtgcag tgggtgcac ttggctcagt gcagcctcga ctctctggga tccagcgatc 360
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ctcccgcttc agcctctaga gtanccgaga ccacaggtca cccctcgctg ccaggctctc 420
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 agcttcaggt ctcccgcccc tgtcccggtg cctctcctgc aggacggaac tctgtgggaa 600
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<210> 4873

<211> 648

<212> DNA

<213> Homo sapiens

<400> 4873

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 atgcaataga tacaggaaga tttccacggt tgctcactcg gattcttcaa aaacttcacc 180
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 tgtatcacia tgtgaagcca gcagctttgc agcagcaatt agagaacatt catcttagac 360
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<210> 4874

<211> 490

<212> DNA

<213> Homo sapiens

<400> 4874

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aagccaacct acgcatgttt caacgtgccc aggacgacct tatccctgct gtggaccggc 420
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tatcccgggtg 490
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<210> 4875

<211> 760

<212> DNA

<213> Homo sapiens

<400> 4875

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ctaaagggtg cccattanag aagtctcggg cctagtgtcc cagccacatg gagtgtccca 660
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gaagatntaa gctgtgcact tcttgggctg ccttaattta 760

<210> 4876

<211> 767

<212> DNA

<213> Homo sapiens

<400> 4876

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cgggatcttt tgatgaagac tgnaaaata tgggangtga aaacaggaaa gtgtctcaag 720
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<210> 4877

<211> 785

<212> DNA

<213> Homo sapiens

<400> 4877

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 caccaccgca ctccagcctg ggagacagag tgagaccctg tctccaatat atatatatat 360
 taaataaatg gttaagagct aaccaaagca tatagaggaa tagctttata gcaaataatg 420
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 ggcaagagga cccagcatga ggcacaagga gttcaaggct aagggtgaag ctatgaataa 720
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<210> 4878

<211> 722

<212> DNA

<213> Homo sapiens

<400> 4878

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 tttctctctt tgttgtttaa ggtattaagc acgaattatt acatgagact ggcagatagc 180
 tattaatcct cttacagatt tgagaaagtt gattctcaaa tatttatgca ccttctcctt 240
 cattgttttc tttaaactcg tcctcttaaa aagcttctta agagctcagt taatgctttt 300
 gacttaacta ggagaaaaag gcatgataat acaggcaaga tggcattggt agcaattctg 360
 gtagtggttt ggaatgaatc ctaagaggca gggatcttaa ggacaaggaa gagaagagag 420
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tgttctcaat tcattcatat tattaagctc ttcctgcagt tgatatctga gcagagtaag 540
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 ttgggcactg tggttttaag aatatctgag taaaataaca atatgannta ataaacagaa 660
 gctctaacgt caggtaacaa atagacagca agaaaggntt gcaccatcct cctaagggt 720
 aa 722

<210> 4879

<211> 719

<212> DNA

<213> Homo sapiens

<400> 4879

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 caccgcaggc ccctggccac tgaaagagtg tgcagtggac tgtgggtctc ccatatgcgg 180
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 tgaggttcct gctggggacc atgtgtggtt gtggcatgtg tgagcagaag ggaggatgag 480
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 cctgcttgaa tctgttcgtg ggcaaagggt tgggggaatt tgtgaccctg gnacatcccc 660
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<210> 4880

<211> 751

<212> DNA

<213> Homo sapiens

<400> 4880

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aaaaagaaga actcaaagat acacaaagta atttgaacca aggctcagaa gtttttggag 180
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gcagtataaa gaaggctcag caggctgttg ccaataaagc ttgactgaa tctacgcttc 480
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tagatccaaa gccattccca aattatagag ctaattacaa ctttcngggc aatgtacaat 660
cagaggtatc attgcccaat gcctaagatc ttttaagtgc agcctcactg gtgggaaatt 720
aatggnantt ttttggggga aaggaaagna c 751

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<210> 4881

<211> 716

<212> DNA

<213> Homo sapiens

<400> 4881

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 aagttctcan cagcactacc ttagacttca ggagctaata ggaaactttt tatgggtgtaa 600
 atgctgtaag actttgtaca tacttcagtt gttangaaat ccttanagaa aaaaagaaaa 660
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<210> 4882

<211> 818

<212> DNA

<213> Homo sapiens

<400> 4882

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 taccgataaa acaagtgggtg gtccaagtag tggaggaggt tttgtagatt ggacttttacg 180
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 ttcagaaaag ttacaggagt ttccatttta ggccctgcac ttcctgggct caaagggaac 720
 nttggaaatt gcantgggat ccagattatc cactgcagta aattattggg aaaatggntt 780
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<210> 4883

<211> 816

<212> DNA

<213> Homo sapiens

<400> 4883

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aaccattaca agtctataca caaattggna ttggaaact ttgttacgac aagtcagcaa  660
tgggcatata gcatattttc ctgcaatgaa aagcgtttgt gaacttacct acagaaaatg  720
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<210> 4884

<211> 643

<212> DNA

<213> Homo sapiens

<400> 4884

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ccagtctcca ccagaagttc gggattgcaa aatgggactc tggcagcaaa tttcaaactg  180
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gctgaatagg aacagctctg ctctgcagct cccagcgaga tcaacgcaga aggagataat 300
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 gggcattccg gcacagatac tatgctttcc ccacgggtctt tgcaaccac agaccaagga 540
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<210> 4885

<211> 701

<212> DNA

<213> Homo sapiens

<400> 4885

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 gtggtggagt ggaagtttgt gttgggtana gaatgggggg agttaccgc tgggaaagaa 660
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<210> 4886

<211> 790

<212> DNA

<213> Homo sapiens

<400> 4886

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gccatttagg agctctgctc aaagccagac gtatcctaga aggaaaacat caccatggct 180
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<210> 4887

<211> 765

<212> DNA

<213> Homo sapiens

<400> 4887

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caatgcagaa atacccaaac cctatgaacc caagtgtggt tggagttgat gtgttgaca 180
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 ccataaggac tccaatggca gcagcagcgt ttgcagagaa gtgatcgtga cagttgggaa 660
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<210> 4888

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4888

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 catcggggga ctgctacctg ctctctgccc cggggcccca cgtcctgctt ctggggatca 660
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<210> 4889

<211> 612

<212> DNA

<213> Homo sapiens

<400> 4889

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cgacactttc tatcgacaat ttcataattat tgtatgtgga ctggactcta tcatgccag 480
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<210> 4890

<211> 811

<212> DNA

<213> Homo sapiens

<400> 4890

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cactttcctt atttactgaa tgagtggagg gcagagacag gcctggagtt acgcacactg 300
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<210> 4891

<211> 838

<212> DNA

<213> Homo sapiens

<400> 4891

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<210> 4892

<211> 729

<212> DNA

<213> Homo sapiens

<400> 4892

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<210> 4893

<211> 592

<212> DNA

<213> Homo sapiens

<400> 4893

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<210> 4894

<211> 756

<212> DNA

<213> Homo sapiens

<400> 4894

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tgaaaacttt tgtatagttg ctaagtagga ttaaaaaatg agtatcagaa tttggtaaac 240
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atttataaat attatatgct cagaatcctt gattgataag agcatatgat taaaaaatga 600
aaacacattg tagagttatt catagtcaca tatggtatgt aactgaatat atatgatata 660
tataatataa ataaatatat ttaaaataca tatttatata taaatatgta ttatatataa 720

atatatatca tatattanan antaatataa ccaaatt

756

<210> 4895

<211> 716

<212> DNA

<213> Homo sapiens

<400> 4895

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 tgctttaacg tgacagctgc gtggaagaaa taatggttgg gcaaacactt ttctattgan 660
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<210> 4896

<211> 770

<212> DNA

<213> Homo sapiens

<400> 4896

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 tacatttgtg ctctctctct ctgtttttct cccttctctt tccaagttaa gatnaagata 720
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<210> 4897

<211> 744

<212> DNA

<213> Homo sapiens

<400> 4897

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 aaccactcc tgtttaaatg tgaggatttg gaatgttatg tgaaagaaat ggatgcaata 660

aggagaacgt cattccgac aacaaggga gacctggctg aactgctgaa gcaaccgna 720
ntgcctgggg ccatgttcct tcna 744

<210> 4898

<211> 742

<212> DNA

<213> Homo sapiens

<400> 4898

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gttctgaaca aatggcattt cctgctcctg accctggcag ttggccccag attccttgtc 240
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acccttggtg tgtatttata aagtcaactt atcagccatt taagatggng atttgcntta 720
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<210> 4899

<211> 757

<212> DNA

<213> Homo sapiens

<400> 4899

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<210> 4900

<211> 702

<212> DNA

<213> Homo sapiens

<400> 4900

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ttcttcagca atgtccgagc agcaggattc gatgagattg agcaagatct tactcagaga 600
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<210> 4901

<211> 783

<212> DNA

<213> Homo sapiens

<400> 4901

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<210> 4902

<211> 609

<212> DNA

<213> Homo sapiens

<400> 4902

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aanttcccn 609
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<210> 4903

<211> 620

<212> DNA

<213> Homo sapiens

<400> 4903

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tcagggtttt ggtgaagctc ttttccccta atccaatgaa agntagggca agggatgggtg 600
ggtcctgccc tttngggggg 620

<210> 4904

<211> 705

<212> DNA

<213> Homo sapiens

<400> 4904

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<210> 4905

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4905

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<210> 4906

<211> 702

<212> DNA

<213> Homo sapiens

<400> 4906

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<210> 4907

<211> 759

<212> DNA

<213> Homo sapiens

<400> 4907

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